

CHEMICAL MARKETS

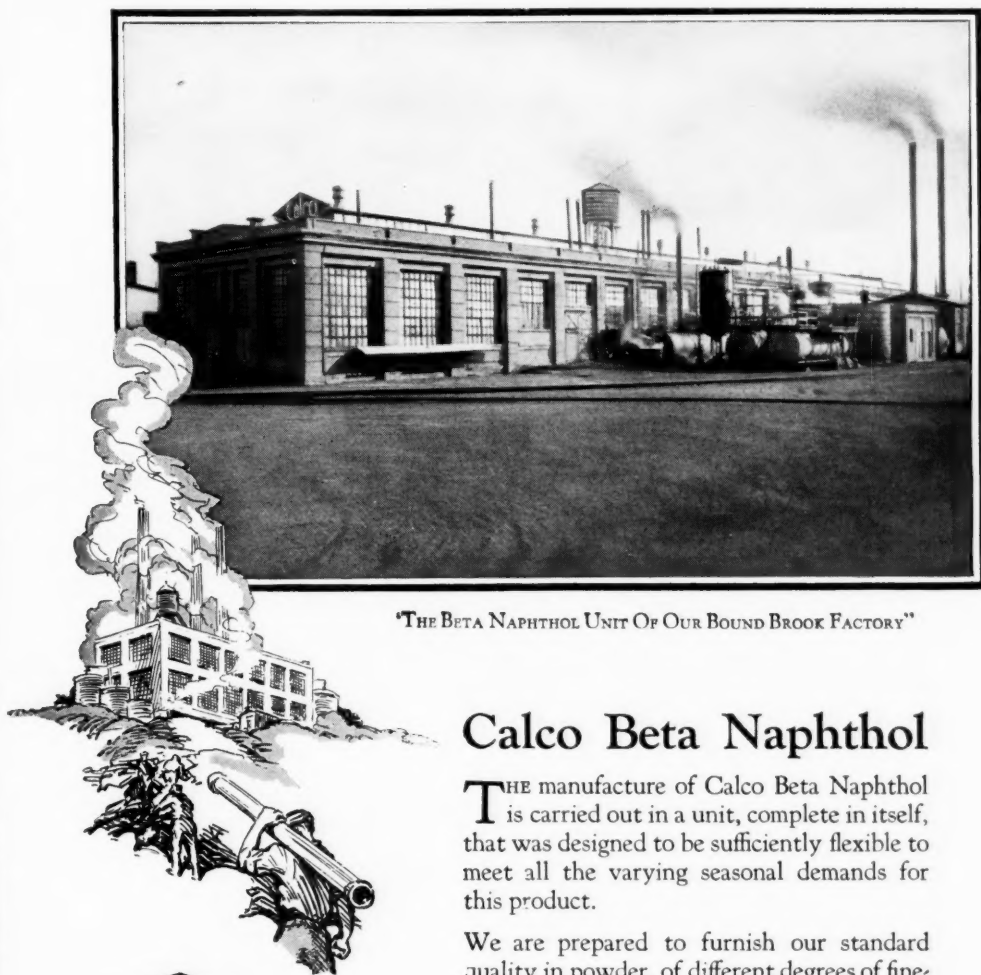
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of Chemistry and Industry

VOL. XXI No. 25

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Drug & Chemical Markets, Inc.

DECEMBER 22, 1927



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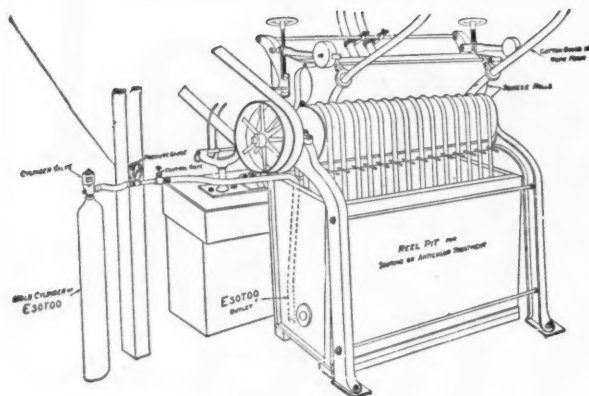
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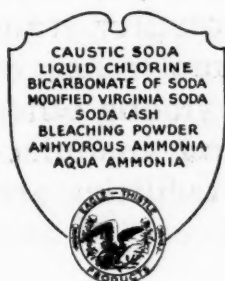
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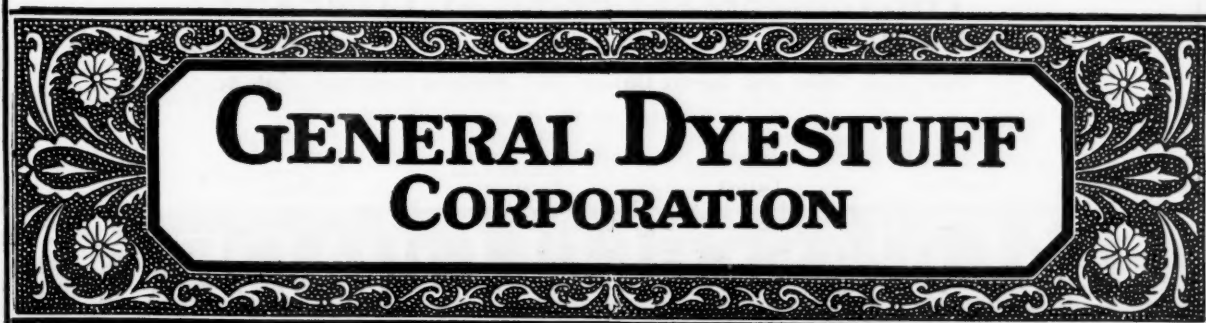
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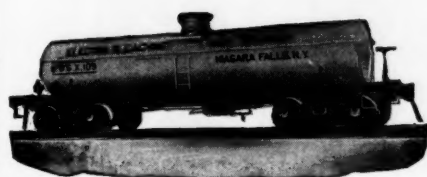


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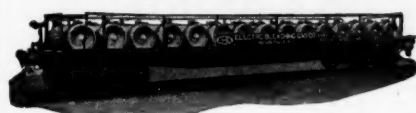
tions are made from E B G Liquid Chlorine. The result? Liquid Chlorine has eliminated

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ALCOHOL THROUGH THE AGES , NUMBER VI



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CHEMICAL MARKETS

VOL. XXI

DECEMBER 22, 1927

No. 25

Dr. Doran's Dilemma.

NO ONE, within chemical circles at least, has ever had occasion to doubt the sincerity and honesty of the man in whose hands rests the administration of the industrial alcohol prohibition regulations. Since he has been put in charge he has given full testimony, by actions which speak much louder than any words, of that quality of courage which is all too rare in administrative circles. It was, in the first place, a courageous thing to leave his Bureau position to take up his present work, and those who know him best know how heavily the arguments of service both to administration of prohibition and to conservation of legitimate industrial interests must have weighed with him. His plan of limiting the production of alcohol was in itself a bold stroke.

ONE as familiar with prohibition administration as Dr. Doran is must have balanced carefully the chances which this plan has of success. He must know full well the insistent demand that there is for beverage alcohol in this country, and he is in a good position to realize that curtailment of denatured alcohol, if needed to supply that demand, would not of necessity cut it off at the source.

SINCE he distributed to the alcohol manufacturers his allotment figures for their next year's production, we understand that practically all of the pro-

ducers have, directly or indirectly, more or less vigorously, protested against their quota. Presumably each has wanted an increase in his own allotment.

DR. DORAN had many conflicting interests to reconcile in establishing these quotas. As but one specific example, would a plant whose production had not been during the past year up to the maximum either because of lack in selling effort because of curtailment as a deliberate matter of policy, be based upon average production or the number of years or on their actual output? What percentage of his production possibilities should be granted to a new producer or to an old producer who has increased his plant capacity? However difficult this task has been no one has questioned the disinterestedness of the quotas arrived at and it is a curious commentary on the attitude of the manufacturers when they almost unanimously filed protests against what most of the big industries of this country would welcome with open arms.

WE ARE not sure that Dr. Doran's curtailment plans will achieve the results which the Prohibition Administrator expects; but we do believe that, since he has served the alcohol producers and consumers honestly, that he ought to have the very whole-hearted support of every branch of the chemical industry.

NEXT YEAR'S OUTLOOK

Despite that bugbear of industry—"Presidential year" which makes its appearance every four years to cast its spell over business in general and likewise in spite of the much overrated threat of the European Cartel many executives of our industry do not hesitate to predict a continuance of prosperous conditions throughout the coming year.

The chemical industry has come to be looked upon as a very hazardous one of which to make predictions and the reputation is justly deserved. Happily, this state of uncertainty is caused by the sweeping changes wrought by research and not by a lessening of the scope of demand. Research has left its mark on the year now drawing to a close and will most certainly play an equally prominent part in the fortunes of business in the year to come.

A general feeling of optimism cannot be condoned in an industry which in the short span of a decade has risen from a position of comparative obscurity to that of major importance. Those outside of the industry, particularly financial interests, are today as conversant with chemical manufacturing affairs as they are with those of other important groups. The movement of chemical stocks, the space given these activities by financial journals, and the evident desire of outsiders to more thoroughly acquaint themselves with the industry, are all tributes to the niche of importance now occupied by chemistry in the daily workings of the country.

With this back ground supporting the more tangible results of the present contract season, one fully up to the manufacturers expectations, the problem of the industry seems one of capitalizing on what it has earned without overstepping the bounds of sound business judgment.

FROZEN DEVELOPMENT

In every chemical establishment where constructive research is carried on continuously the executives must sooner or later decide whether improvements in process or in product shall be put into the plant or held in the safe. Almost always the problem presents itself in concrete, highly practical form. The present operation is satisfactory—it works, it meets competition. To change requires more or less investment of time and capital. And when this question arises it so bristles with facts and figures, with personal opinion and company expediency, that seldom is it considered from the saner, broader foundation of general policy. Yet in the abstract this problem must sooner or later become a plank in the company's platform bridging the foundations of research and finance, production and sales. The answer habitually given by any organization will determine much

of its technical and its commercial characteristics.

Is it wiser to scrap plant, before obsolescence, in order to anticipate competition; or is it sounder practice to hold improvements in reserve but to work present processes till forced by manufacturing conditions or competitive sales to produce more efficiently?

In view of the conflicting reports on the progress of the Cartel formation which have been emanating from agents of the Department of Commerce in various European cities, the Department has issued a statement to the effect that in its opinion the ultimate consummation of the Cartel seems assured and that the industry as a whole welcomes any possible news collected by its agents.

The Department is to be commended on the dispatch with which it has released news on the subject and while these reports may seem confusing at the time, they are a tribute to the alertness of our foreign agents and nothing would be gained by a curtailment of this news.

[Ten Years Ago]

(From Drug & Chemical Markets, Dec. 19, 1917.)

Work has begun at Kingsport, Tenn., on the new potash recovery plant of the Clinchfield Portland Cement Corp. This plant will employ the Cottrell or electrical precipitation system.

The Tariff Commission is undertaking an inquiry into the significant developments that have taken place in the chemical industries since the passage of the tariff act of 1913.

Dr. Raymond F. Baker, director, Mellon Institute, University of Pittsburgh, will be commissioned lieutenant-colonel in the Ordinance Dept., U. S. A., and will be directed to take charge of the chemical work for our armies in France.

War Industries Board and fifteen wood alcohol refiners have reached an agreement by which the total output of wood alcohol of the United States will be purchased by the government.

E. I. du Pont de Nemours & Co.'s salicylic acid plant at Newark, Del., was destroyed by an explosion and fire last week with damage of \$100,000.

New Jersey Zinc Co. has taken a lease on a new office building to be constructed at 143 to 149 Maiden Lane, New York.

General Chemical Co., New York, has contracted for the construction of a new one-story laboratory addition, at its works at Laurel Hill, L. I., to cost about 8,000.

Stockholders of Solvay Process Co. have ratified the plan to increase capital stock from \$18,000,000 to \$36,000,000.

The Chemical Industry in 1928

Any Forecast Is At Best Founded On Belief and Current Conditions, But There Are Several Predictions Advanced In This Article Indicating Further Expansion In the Chemical Industry During the Coming Year.

THERE seems to be a feeling of general optimism as to what the New Year will bring to the chemical industry. Within the past few weeks **CHEMICAL MARKETS** has received expressions of opinion from leaders in many branches of the industry including the alcohol, heavy chemical, solvents, wood and fine chemical divisions and while some urge conservatism all anticipate a healthy condition throughout the year.

C. Leith Speiden of Innis Speiden Company shares to some extent in their opinion and states his thoughts on the subject thusly:

"This year has been a healthy one for the heavy chemical business, which in itself is a fair barometer of general business conditions throughout the country for the reason that heavy chemicals are used to a very large degree in most of the industries which supply our citizens with their every day requirements. Specific industries for example are: paint, leather, silk, rayon, laundries, toilet preparation, ink, rubber, artificial leather, textiles, automobile, medical supplies, paper, railroads, etc.

"When the fundamental conditions of American industries are good it is directly reflected in the heavy chemical business. There is no question, so far as quantities available are concerned, that, in the main, the American producers of heavy chemicals are able, and are at present equipped to supply the great bulk of heavy chemicals required by the American consuming public. In fact there is at the present time an excess for export in many of these basic heavy chemicals. Tremendous strides have been made in the American heavy chemical business in the past 15 years. Demands have increased astonishingly and the industry has flourished under the impetus given to it by these demands."

"How would my position be affected by the elimination of the imposition of a lower import tariff on my product?" is a question each manufacturer should answer for himself."

"There will probably be ample room and justification for considerably greater investment in the chemical industry of this country as the country develops, but for the time being effort and capital should be devoted to research, and more efficient and cheaper methods of production and distribution. One of the great wastes with which the American chemical industry is confronted is the cost of distribution. Under this general heading can well be enumerated tremendously duplicated selling effort and expense incidental thereto, such as freight equalization, etc. Another great expense is duplication of research along the same lines by a number of different interests. This is desirable in that good competition is stimulating. On the other hand it is undesirable for the individual concern as well as the industry as a whole if unintelligently undertaken. By this I mean that if it were possible for some central control to direct or lend a guiding hand to chemical research, a broader field might be covered, without unnecessary expenditure of money in too much concentration by many on a few problems."

"These are only two examples indicating there is consid-

erable room and possibilities of savings within the industry. At the same time these savings can affect a national saving, which will help American business as a whole, both at home and abroad. Fundamental conditions for 1928 in American business seem to be sound, and the heavy chemical industry should and will, in my opinion, prosper in direct ratio to the Nation's forward progress.

Lacquer solvents have again been much in the public eye during the year and **Arthur Orr, sales manager of Commercial Solvents Corporation** has this to say on the subject:

"Organic solvents, other than petroleum distillates, find their principal outlet through the nitrocellulose lacquer industry and hence any prediction as to the consumption of such solvents must consider the potentialities of the lacquer market.

With general business indications for the early months of 1928 pointing to a continuance of industrial prosperity and with the farmer now finding himself a sharer in the national well-being, lacquer consumption by automobile manufacturers should reach a new peak in 1928. In the general industrial fields, nitrocellulose coatings are making consistent progress and, aside from their proven advantages for a wide variety of uses, our newly aroused color-consciousness will aid in maintaining an increasing demand for the type of finish which modern lacquer is best able to supply.

The use of lacquer in the architectural field has not developed as rapidly as was expected largely because of the unwillingness of painting contractors to experiment with a new material requiring a new technique of application. However, during 1928 we may expect to find a wider recognition of the special advantages of lacquer on the part of progressive master painters and with the development of improved nitrocellulose coating systems and greater proficiency in their application, an increasing volume of lacquer should be used for architectural finishing."

Basing an opinion on the foregoing premises, it would appear that the first six months of 1928 will see a demand for lacquer solvents exceeding that of the last six months of 1927.

Coming as it does from an outstanding figure in the wood chemical industry this statement by **Charles B. Hall of Cleveland-Cliffs Iron Company** is significant: "Replying to your inquiry as to my opinion regarding the prospects of the chemical business for next year, particularly that section that pertains to the wood industry. When one contributes an opinion, forecasting business conditions, it seems to me the expression must necessarily be more or less selfish; consequently, I would say I think business in 1928 will be good—at least, this would express my desire. However, with an expression of this kind, I must consider some facts in order to arrive at an intelligent opinion, which I hope will be a consistent prediction."

"What has gone over the dam should not be considered, except to recognize the fact that the dam is still in existence and the same kind of material is still going over—whether

for good or bad, that is something that every one must determine for himself.

"The wood industry during the past twenty-five years has been a very healthy one, notwithstanding a great many changes, resulting in a good average over this period. The industry today is arriving where I cannot accurately predict what it will be, but it is a fact that the experience and capital are now actively engaged in a process of rejuvenation, building up new walls on the well-established foundation, housing in, as it were, an old business in a new home, with new surroundings, creating a new house for a commodity the manufacturing world, as well as the Government, can never get along without. New requirements, like new forms, create new life, and all the new conditions at this particular time fit in at the very beginning of our new year. 1928 cannot possibly do anything but show a new growth with a positive improvement. Starting, as it were, at the bottom, there is everything to gain and nothing to lose.

My opinion is that more attention must be given to costs, and profits must come from that source rather than the old-fashioned way of adding profits to high costs. Poor management in the past must give way to good and better management. The factory research engineer has come into his own, and he, too, must do his part. The key to the whole operation is the co-operation between the sales and the factory. The market is also a vital consideration, but if there is no market, co-operation of this character will soon establish one, and the quality of production, with a constant cheerful and healthful condition will then exist; therefore, for one, I am willing to at least predict a very bright and prosperous 1928, with a glorification of a people, the majority of which are constantly building for a better, brighter, healthier, and more prosperous world, consequently 1928 should be much better than 1927.

Joseph Wrench, sales manager of Industrial Chemical Company warns against a too ardent exploiting of the chemical business and urges a continuation of research. Mr. Wrench says:

"As a preface, permit me to say the tremendous diversity of the chemical industry, with its various major and minor subdivisions almost precludes, or at least makes difficult any worth while opinion on the composite activities. Its many branches related scientifically are often unrelated in their trade contacts. I am able to state, however, in our particular sphere, the past twelve months have been marked with steadiness and business in general has been satisfactory.

The future situation in the chemical industry may call for some further adjustment in specific instances. Apart from being subject to general economical disturbances, it may be the victim of its own research creating new and cheaper processes of manufacture and placing those already operating in jeopardy. Recent instances are too well known to mention.

Taking a broader view of industry, there appears on the debit side:

1. Excess capacity—the aftermath of the war period—leaving a slack that has not yet been taken up. A tendency to over-produce that has prevailed in the chemical industry in common with other industries. Together, they present a problem demanding wise control and guidance, if the business ship is to be kept on an even keel.

2. Recession, or more correctly a further adjustment, is probable, but dealt with sanely is no cause for alarm. Insistence on a disproportionate share of the prevailing trade is a form of selfishness that can only too quickly bring an industry into distress. Striking a fair balance between supply and demand offers a reasonable solution.

3. The ready availability of "easy" money is forcing an artificial situation in certain directions that contains the germs of reaction, with dangerous potentialities.

(Continued on Page 884)

[Who's Who in the Chemical Industry]

Clarence Blake Flint, 1st v. p., Paige & Jones Chemical Co., Inc., New York. Born: Portland, Me., Mar. -18, 1879. Educat.: Bowdoin Coll., A. B., 1901. Mar.: Florence Pease, Brooklyn, Apr. 27, 1921. Children: two sons. Bus.: secy. & treas. Newton Fire Brick Co., Albany, N. Y. 1902-10; pres., Flint & Chester, Inc., 1912-21; v. p., Paige & Jones Chemical Co., 1922 to date. Mem.: University Club, Albany; Theta Delta Chi, Railroad Club of N. Y. Hobbies: golf, bridge, tennis.

Alfred P. Howes, pres., Howes Publishing Co., New York. Born: Brooklyn, N. Y., June 21, 1885; Educat.: Utica, N. Y. Free Academy, 1903; Cornell, 1907, A. B. Mar.: Winifred Covell, Rutherford, N. J. Apr. 18, 1911. Children: two. Bus.: Founded Howes Pub. Co., in 1918, with American Dyestuffs Reporter as sole publication; later acquired Knit Goods Weekly; Silk; Silk Digest Weekly. Mem.: Theta Delta Chi; Cornell; Chemists Club, N. Y.; Union Club; Yountakah Country Club, Nutley, N. J.; Salesmen's Assn. of Chem. Industry; Synthetic Organic Chem. Mfrs. Assn.; Amer. Assn. of Textile Chemists & Colorists. With co-operation of Louis A. Olney, editor of American Dyestuffs Reporter, promoted and established in 1920, "The American Assn. of Textile Chemists & Colorists.

Arthur Samuel Key, sec., Federal Chemical Co., Louisville, Ky. Born: Louisville, July 4, 1888; educat.: Louisville public schools, 2 years, Manual Training High School. Mar.: Evelyn May Keyer, Louisville, June 29, 1914. Bus.: Started as office boy with Federal Chemical Co., Dec. 20, 1904. Mem.: Elks, Transportation Club of Louisville, Louisville Board of Trade, Traffic Com. of Nat. Fertilizer Assn. Hobbies: Golf and horticulture.

Joseph W. Leberman, sales mgr. & treas., Enterprise Mill Soap Works, Inc., Phila. Born: Phila., Oct. 4, 1873. Educat.: Central High School, Pierce Bus. Coll. Mar.: Estelle Behal, Phila., June 2, 1903. Children: two sons, two daughters. Bus.: John & James Dobson, 1890-95; Enterprise Mill Soap Works, Inc., 1896 to date. Mem.: Chemical Club of Phila., Mercantile Club, Ashbourne Country Club.

Robert William Powell, owner, R. W. Powell & Bro., Goldsboro, N. C. Born: Goldsboro, N. C. Aug. 3, 1889. Educat.: Goldsboro High School, State College, Raleigh, N. C. Mar.: Huldah T. Slaughter, Goldsboro, Apr. 24, 1920. Children: 1 son. Bus.: est. company in 1918. Public record: 2 years in U. S. Army, 18 months. A. E. F., 318th F. A. 81st Div. Mem.: Alpha (Southern) Fraternity.

Esse Edgar Routh, Southern sales mgr., Mathieson Alkali Works, Inc. Charlotte, N. C. Born: Abingdon, Va., Jan. 4, 1886. Educat.: Va. Polytechnic & Davidson College. Mar.: Brooke Jones, Union Level, Va., Nov. 17, 1917. Children: four. Bus.: asst. mgr. sales bicarbonate, 1909-12; mgr. 1912-19; Southern sales mgr., all products, since 1920. Mem.: Shriners, Charlotte Country Club, Southern Mfrs. Club, Kiwanis Club. Hobbies: golf, music, trout fishing.

G. Leicester Thomas, gen. mgr. & treas., Thomas & Co., Frederick, Md. Born: Adamstown, Md., Feb. 24, 1880. Educat.: A. B., Franklin & Marshall Coll. 1901; A. M. 1903; Mar.: Louise Pearl Brown, Heart Lake, Pa., Feb. 15, 1905. Children: two sons, three daughters. Bus.: gen. mgr. & treas. Adamstown Canning Co., Colt Dixon Pkg. & Mfg. Co., Thomas & Co., dir. Fredericks-town Savings Inst. Mem.: F. & A. M.; Oddfellows.

Outstanding 1927 Events In The Chemical Industry

JANUARY

William B. Thom elected president Westvaco Chlorine Products Co.
Luther Martin, Wilckes-Martin-Wilckes Co., oldest lamp black manufacturer in the United States celebrates 76th birthday.
Allied Chemical & Dye Corp. announces formation of Semet-Solvay Engineering Corp.
Henry Pfaltz, president, Pfaltz & Bauer, retires.
Dr. John E. Teeple receives Perkin Medal.
Solvay & Co., Belgium, offers \$15,000,000 stock in Solvay American Investment Co.

FEBRUARY

Allied Chemical & Dye Corp. announces plans for Hopewell, Va. fertilizer plant.
American Chemical Society establishes National Research Institute for Chemical Education with initial endowment of \$2,000,000.
E. I. du Pont de Nemours & Co. raises annual dividend on common stock to \$8 share.

MARCH

Dr. Ira Remsen, president emeritus Johns Hopkins University and inventor of saccharin, dies.
Chinawood Oil advances to 29c lb.
Dr. Roger T. Adams presented with William H. Nichols Medal.
Chilean Nitrate producers adopt free selling plan.
Lazote, Inc., begins first American production of synthetic methanol.

APRIL

Alcohol advances to 37½c gal. for C. D. F. No. 5
I. G. Dyestuff Corp. files incorporation papers in Louisiana.
U. S. Industrial Alcohol Co. becomes Rockefeller controlled.
Commercial Solvents Corp. reports 60 per cent increase in earnings for first quarter of 1927 as compared with similar period of 1926.
National Lead Co. increases capitalization from \$50,000,000 to \$100,000,000.

MAY

Flood causes further advance in alcohol to 40c gal.
Merck & Co. and Powers-Weightman-Rosengarten form \$9,000,000 merger.
Dr. James M. Doran appointed to succeed Roy A. Haynes as Commissioner of Prohibition.
Negotiations started for merger of I. G. and Imperial Chemicals, Ltd.
Principal French chemical industries merge into Union Chimique.
Ethyl acetate advances 13c gal. in week.
N. V. Potash My., formed by French Potash Society and Potash Importing Co. of America.

JUNE

E. I. du Pont de Nemours & Co. obtains American rights to Casale and Liljenroth patents.
Celanese Corp. of America announces Morgan aid in \$25,000,000 refinancing.
First International Congress of Soil Science held in Washington.

JULY

Brewster acetic acid patent rejected by Patent Office.
Institute of Chemistry holds first session at State College, Pa.
Carbide & Carbon Chemical Corp. announces new marketing plans for ethylene glycol as anti-freeze.

AUGUST

Caesar Augustin Grasselli, chairman of the board, Grasselli Chemical Co., dies.
Standard Oil Co. of N. J. and the I. G. announce cooperative agreement on patents.

SEPTEMBER

American Chemical Society holds Fall meeting in Detroit. Rejects Bertholett Memorial.
Dr. Doran, Commissioner of Prohibition, announces plan to control alcohol production.
Eleventh Exposition of Chemical Industries and Fifth Annual Chemical Industries Banquet held in New York.

OCTOBER

Davison Chemical Co. and Pyrites Co., Ltd., combine interests in Cuba.
I. G. and French Central Committee reach agreement on dyestuffs and fertilizers.
I. G. reported seeking stock listing on N. Y. Stock Exchange.

NOVEMBER

First meeting of industrial alcohol advisory council with Commissioner Doran decides to attempt restriction of alcohol production to 85,000,000 gallons during 1928.
I. G. and Norsk Hydro reach nitrogen agreement.
Davison Chemical Co. acquires Pick Fertilizer Service, Inc.
Fred L. Lavanburg, president, Fred L. Lavanburg Co., dies.
Mercury advances to \$129.00@\$132.00 flask.
National Fertilizer Association holds third annual convention at Atlanta.
Mathieson Alkali Works, acquires B. P. Clapp Ammonia Co.
E. I. du Pont de Nemours & Co. raises dividend on common stock to \$10 a share.

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4. A speculative trend which, if persisted in, must inevitably lead to inflation and is indicative of future uncertainty. Expanded, it develops top-heavy conditions that only costly readjustment can correct.

On the credit side, we have:

1. A prevailing financial structure that has already proven its capability to absorb minor, if not, major disturbances, sufficient to maintain business equilibrium. Arising out of same, a gradual recognition that no marked swing of the business pendulum or trade cycle is any longer inevitable.

2. A general employment situation that is satisfactory, at good wages, which, coupled with abundant crops, provides in the mass a great latent purchasing power. As a result of economic research, the recent responsible indorsement and approval of instalment buying is an additional favorable portent.

3. Increase in industrial efficiency, with a consequent lowering of costs, that not infrequently permits of widening of markets.

4. Present-day inventories standing at such low levels providing good insurance against possible deflation while, at the same time, insure immediate benefit from any upward trend in price.

5. A demonstration of inherent soundness in the good and consistent earnings of public utilities, and the improved earnings of railroads.

6. The emergence of such basic industries as textiles and leather from the post-war crisis.

Accepting these premises, the balance to be drawn is distinctly a "creditable" one and pre-supposing the business mind will function sanely, the future can be looked at with no little optimism.

So far as it concerns our industry, the well-nigh universal application of chemicals must bring a direct reflection and a participation in the common welfare. As a precaution, however, it would appear wise to gear the industrial machine to a speed at which it can safely travel without running off the track. Meanwhile, devoting time and research towards the creation of new domestic markets, associated wherever feasible with a fore-sighted policy of developing and maintaining export trade."

George Simon of Heyden Chemical Corp. calls attention to the fact that 1928 is presidential year but is confident that business will not be seriously affected. Leading up to this conclusion he writes:

"The future is to be born out of the past and the present. Let us see what we can learn from these to frame our opinion about the coming year and what it will bring for the chemical industry."

"As an inheritance of the World War, there still exists over-production. The consumption in our country has not yet grown to a point where the factories expanded during a time of abnormal demand for their products, can be operated to full capacity. Attempts by many manufacturers to do so, in spite of the difficulty to dispose of their products, have lead to large inventories and unsatisfactory prices. The failure to obtain a fair return for the money invested in plants and research is unfortunate because more money will have to be on research, and the brains of our chemists have to work harder than ever if the American chemical industry is to retain the high position which it has attained during the last decade."

"Numerous new inventions and advancements in methods of manufacture are to the credit of 1927, but the coming year will show further developments. Important chemicals which in the past were derived from organic substances, chiefly coal tar, are now made by contact processes from materials taken out of the inexhaustible supplies of the air and water. A new era in the chemical industry has com-

[New Incorporations]

Robert Beyer Corp., New York, 10,000 shares common stock; machinery, chemicals, W. F. McCormack, Bill Drafting ommission Office, New York.

Paint Products Stores Corp., Wilmington, Del., \$200,000 and 10,000 shares no par value; Corp. Trust Co. of America, Wilmington, Del.

Redoute Chemical Works, Inc., Detroit, Mich., \$100,000; cleaning compounds Franklin L. Mettler, Wilmington, Del.

New Process Cork Co., New York, 200 shares common stock; cork products. Leary & Rood, 120 B'way., New York.

National Holding & Exploiting Co., New York, \$100,000; chemists, dry salters. W. Klein, 1,440 B'way., New York.

Acetol Products, Inc., Wilmington, Del., 300,000 shares no par value; materials for protective coating for sealed containers. Corp. Trust Co. of America, Wilmington, Del.

Dragon Chemical Corp., New York, \$200,000; Spencer & Iserman, 100 West 41st St. New York.

R. S. Cooper Glue Co., New York, \$20,000; M. Gross, 3,208-3rd. Ave., New York.

Sage Rayon Corp., Newark, N. J., \$50,000; mfg. rayon. Harry Swartz, Newark, N. J.

Agricultural Chemical Works, Inc., Wilmington, Del., \$250,000 and 2,500 shares no par value, oils, fertilizers, minerals. Corp. Trust Co. of America, Wilmington, Del.

Warren Refining & Chemical Co., Richmond, Cal.; \$25,000; W. T. Bray, J. P. Herr, C. W. Kelsey.

The Apex Chemical Co. Ltd., London, Ont., \$30,000 and 600 shares of no par value. Richard F. Gowan, Sebastian Gilles, George A. Arthur.

The Economy Drug Store Ltd., Toronto, Ont., \$40,000; mfrs. drug & chemicals. Solomon Steiner, David Muir, David Landsberg.

The Gerard F Schmidt Ltd., Toronto, Ont., \$50,000; mfrs. chemicals. Archibald W. Langmuir, Norman E. Strickland, George E. Atwood.

The International Fibre Board Ltd., Ottawa, Ont., \$3,325,000 and 10,000 shares of no par value; mfrs. paper products. Francis C. Dobell, John L. Bishop, Claude S. Richardson.

The General Power & Paper Co., Ltd., Montreal, Que. 50,000 shares of no par value. John W. P. Ritchie, Edward J. Waterson, William H. Wilson.

menched, and the field of development is so wide in scope that nothing may seem impossible of achievement. But this has also its drawback because enterprises which are prospering today may become obsolete tomorrow, as their processes may be superseded by new and better ones."

"It is conceded that business conditions in general are sound, and with generally good business, the chemical industry must also prosper because its products go into every line of manufacture. With the growth of the country, an increase of consumption has prevailed on the average for some years. This will probably continue and make it possible for the manufacturers of chemicals to dispose of more of their goods. Hand in hand with this must come a stabilization of prices which may be hoped for during the coming year."

"Next year will be a year for presidential election. This usually has a retarding influence on business, particularly as it is almost certain that tariff-discussion will play an important part in the campaign. But fears and uncertainties as to the continuation of a protective tariff policy, so badly needed by the chemical industry, cannot change the underlying fundamental conditions which are sound and augur well for a prosperous new year that may come to the chemical industry."

From the sales manager of one of our largest chemical manufacturers in the Mid-West this opinion is received:

It seems to me that we can expect a betterment of business conditions in the future, and possibly the turning point is being reached right now. So far as our own experience is concerned, there has been no appreciable change noticeable, except since sometime in September, and even at that, September was a better month with us this year than last. There has been a falling off in our ratio of increase in sales, but we notice already a slight turn for the better, and we seem to be able to sense these things pretty well because our products reach into so many lines of industry. I feel that 1928 should be a good year—and I think that is about all I have to say.

The Industry's Thoughts On Frozen Development

"IF it were not a fact that the causes for delay and neglect in the application of new processes and improvements are not generally known—even to the originator of the new ideas—the delays might rather be classed as due to rational policies than to sequestering ideas" writes Hermann E. Kreider of Columbia Chemical Division of Pittsburgh Plate Glass Company.

"Recommended improvements on established processes are considered, and if facts and figures show an advantage, they are generally adopted. It might well be termed a natural law of policy, as profit is desirable and the satisfaction of the customer is inductive to more extended business connections. However, facts and figures for extensive alterations are not to be taken too far afield. The investor's welfare is dependent on the executive's judgment."

"A change in process and judgment involves a large amount of capital. Not only must the known returns from an established plant be compared with the problematical returns from the proposed plant with the additional outlay, but competitive interests are making research along the same lines, and if the spirit prevails to gamble on research developments without very careful consideration, someone may find themselves with a new or improved plant—still obsolete. Each industry has its own peculiar problems, and there are none better informed on its contingencies than the executives who shall direct the program. It is natural they be cautious but that same sound caution is not going to let new developments pass that will make good investments for their company."

"The chief function of an executive is to make decisions based upon all the available facts at any given time. Naturally, relevant fact will vary under given circumstances," is the opinion expressed by F. F. Jordan vice-president of Emery Candle Company, Cincinnati. "In my former consulting practice, I have seen this question properly answered both ways. However, based upon my meager experience, if all things are equal, I should say the answer is to scrap the plant before obsolescence. This is sounder policy in this day of overproduction than it was before the War. This is especially true in the chemical industry as one must not only keep ahead of domestic competition, but also must keep on even terms at least with potential if not actual cartel competition. It also, as a policy, works wonders in keeping one's minor executives on their toes—it builds morale."

While not fully applicable to the carbon black industry, Thomas D. Cabot of Godfrey L. Cabot, answers the question

Much Debate and Some Interesting Theories Have Been Brought to Light By An Editorial "Frozen Development" Appearing In This Issue. Advance Copies Have Been Sent to Various Authorities on the Subject, Resulting in the Accompanying Comments on This All Important Question.

in this manner." The question asked in your editorial on "Frozen Development" must be a very real one in most branches of the chemical industry. In the carbon black industry, plants have always been abandoned because of the depletion of the gas fields in which they were located, rather than from obsolescence.

In case the large amount of research we are doing results in any fundamental improvement in our process, it would certainly be our policy to make the investment necessary to benefit by this discovery at all our plants, even though we were not forced to do so by competition. We are never satisfied, but wish to progress, and will not fail to make use of any foothold or handhold that will

lead us upward.

"Waste, inefficiency, senile processes, antiquated plant, and unscientific practices in general" in the opinion of W. A. Hamor, Assistant Director, Mellon Institute" are the foes of profitable operations. Effective intelligence service on market conditions and adequate technical research on plant production problems are the agencies upon which dynamic, successful business is most dependent."

"Strenuous competition such as prevails these days is the factor that most influences progressive change or development improvement. It has brought respect for industrial research, simplified practice, efficiency programs and statistics. Paradoxically, associated effort has effected beneficial concerted vigilance fact finding, and progress in technologic and market research. It has become a truism to say that scientific research has exercised a profound influence on industry, particularly on the character and direction of manufacturing methods. It is equally true that industry has had a great influence on scientific research. By providing opportunities, industry has led to the improvement and extension of research procedures."

"Business is being conducted on a wider scale and at greater speed than ever before. This makes it hard for the weak and the inefficient manufacturers, but opens a wonderful vista to those who are strong, able, free from the influence of precedent, and appreciative of the possibility of improving on the methods of the past. Modern business is therefore especially receptive respecting the application of science in the correction of production, advertising and sales troubles."

Stating that "Our invariable practice is immediately to scrap any part of the plant that can be improved in any way," Richard V. Mattison, president of Keasbey and Mattison Company continues, "we believe in keeping the production up-to-date in management, method, and type. If

we made a great improvement, we certainly would not put it in the safe, waiting for a more convenient time to exploit it, when the pressure of competition would make us do so, as it has always been our idea to be "up and doing" before the other fellow gets awake, if possible.

Edward H. Carus, president of Carus Chemical Company outlines the policy of his company by saying "Our policy has been to apply results of research work to plant operation as quickly as possible. The fact is we once did so to our sorrow, as the change worked satisfactorily, by itself, but caused other troubles down the line, so that we had to change back. We estimate that our loss from scrapping equipment due to change in process is greater than the actual depreciation. The word "obsolescence" has been used for such loss, and we consider any unit obsolete which is not worn out by use but which it pays to replace by a more efficient unit. We note you use this word in a different sense."

"To make any change in a process is not only some financial risk, but a greater one chemically speaking, because new troubles frequently appear where least expected."

What the Chemist Thinks

From the angle of the research chemist, Paul J. Carlisle of Roessler and Hasslacher Chemical Company says "Twenty years ago a general policy might have been of use, but today each question of the type you propose must be a separate problem to be solved with respect, not only to the particular chemical involved, but also with ample thought to the effect on the general program of growth. It is not too much to say that in a well-ordered chemical establishment the necessity for discussing such a question should not arise. With a large proportion of net earnings going back into research, every dollar must be spent wisely. That calls for plans and above all, a plan, one which looks forward not for a year, but for five or ten years. Such a plan, properly formulated, makes of research an effective instrument. Improvements in processes or in products then are not accidental. They come as the result of careful planning and decision that such improvements are advisable. Consequently, their arrival raises little or no question concerning their utilization."

Of the opinion that frozen development rotates around a question of sound business judgment, Jerome Alexander, New York consulting chemist continues.

Whether it is better to put new discoveries into immediate use, or to hold them in reserve seems to me a matter of careful calculation and business expediency, to which no answer of general application can be given. Just as a mariner has to meet whatever weather may come, so too a business executive must be able to navigate his craft under conditions not of his own making. Herein lies the big difference between the manufacturing and the merchandising problem.

"If the changes are relatively inexpensive, if the product has material advantages, if the improvement is not apt soon to be superseded, if the necessary capital is available without onerous conditions or consequences, if market conditions are favorable, and many more IFS, then the change might be considered and made. On the other hand, some executives take the position of Fafnir, "I have, and I hold,"—and practically tell the bringer of an improvement: "We have the business now. Go ahead, and see what you can do. If you survive the 'infantile diseases,' and begin to hurt us—then we'll buy you out at a good price."

"In applied science and in business as well, there is no substitute for sound judgment following an investigation of ALL the existing conditions and factors. Blind adherence to any formula may lead to ruin."

Briefly summing up the policy of David Berg Industrial Alcohol Co., W. J. Lehman is of opinion that "The pioneer who installs new machinery not hitherto proved in practice must necessarily be gambling to a certain extent on its suc-

(Continued on Page 928)

The Editor's Correspondence

EDITOR, CHEMICAL MARKETS:

For clarification of the notice published in your November 3 issue, concerning the new decree of the minister of foodstuffs and agriculture on the use of hydrocyanic acid and cyanides for combating horticultural pests, we offer the following remarks:

The new order was put in effect August 29, 1927, and was for the purpose only of clarifying the various rules of this department. It will be supplemented by suitable decisions and all decrees and orders issued previously by the separate German provincial authorities are settled by it. The orders pertaining to the use of hydrocyanic acid for combating horticultural pests have not been recalled and will not be recalled by the new decree. For special cases a modification of the meaning is provided.

Very truly yours,
German Society for Combating
Horticultural Pests.

EDITOR, CHEMICAL MARKETS:

I have read with interest stories in the current issue of CHEMICAL MARKETS by Mr. W. J. U. Woolcock on British Chemical Progress and Mr. J. H. Lucas on The Cartel and France. The substance of the statement by these two men, who are in position to speak authoritatively, is timely and to the point, and I think you are to be congratulated upon being able to publish two such interesting statements.

Very truly yours,
C. C. Concannon,
Chief, Chem. Div., Dept. of Commerce.

[Foreign Trade Opportunities]

Amyl-alcohol and aldehyde	28618	Hamburg, Germany	Either
Benzol	28520	Hamburg, Germany	Purchase
Blue, Prussian, sodium per-	28519	Dresden, Germany	Purchase
borate, lithium oxide, etc.,			
for ceramic industry.			
Borax, industrial and phar-	28523	Bordeaux, France	Agency
maceutical.			
Chemicals	28619	Amsterdam, Nether-	Purchase
		lands.	
Chemicals, industrial	28521	Rio de Janeiro, Brazil	Agency
Chemicals, industrial	28522	Barcelona, Spain	Agency
Chemicals, industrial	28566	Oslo, Norway	Agency
Chemicals, industrial	28569	Habana, Cuba	Agency
Chemicals, textile industry	28521	Rio de Janeiro, Brazil	Agency
and match-manufacturing			
Dyestuffs	28521	Rio de Janeiro, Brazil	Agency
Paints, enamels, and var-	28522	Barcelona, Spain	Agency
nishes.			
Paints, oils and varnishes	28521	Rio de Janeiro, Brazil	Agency
Pyroxylin plastic, cheap,	28546	Benares City, India ..	Purchase
making combs.			
Soda, bichromate	28522	Barcelona, Spain	Agency
Acid, carbonic	28710	Eilenburg, Germany	Purchase
Acid, chromium	28658	Leipzig, Germany	Purchase
Acids, fatty, vegetable...	28711	Magdeburg, Germany	Purchase
and animal.			
Bentonite, raw, Peruvian	28661	Coswig, Germany	Purchase
other, and light yellow			
ocher.			
Black, lamp	28664	Genoa, Italy	Agency
Borax	28663	Antwerp, Belgium	Purchase
Carbon dioxide, solid	28659	Milan, Italy	Purchase
Chemical products	28663	Antwerp, Belgium	Purchase
Chemicals, household	28666	Lille, France	Agency
Dyes, aniline	28651	Buenos Aires, Argen-	Agency
Essences, flowers	28721	tina.	
Leather dyeing and polish-	28633	Erfurt, Germany	Purchase
ing chemicals.			
Magnesia, sulphate	28651	Amoy, China	Purchase
Paints	28733	Buenos Aires, Argen-	Agency
		tina.	
Pearl essence	28660	Durango, Mexico	Purchase
Phosphate rock	28662	Hamburg, Germany	Purchase
Rosin	28712	Neuss, Germany	Both
Rosin	28728	Tokyo, Japan	Purchase
Rosin	28664	Christchurch, New	Purchase
		Zealand.	

Caustic Poison Act Regulations

Pursuant to the authority contained in an Act entitled "An Act to safeguard the distribution and sale of certain dangerous caustic or corrosive acids, alkalies and other substances in interstate and foreign commerce," approved March 4, 1927, which Act specifically mentions: Hydrochloric acid, 10 per cent; sulfuric acid 10 per cent; nitric acid 5 per cent; carbolic acid or phenol 5 per cent; oxalic acid 10 per cent; any salt of oxalic acid 10 per cent; acetic acid 20 per cent; hypochlorous acid, free or combined, and preparations yielding by weight 10 per cent or more available chlorine, excluding cal chlorinata, bleaching powder, and chloride of lime; potassium hydroxide 10 per cent; silver nitrate 5 per cent; ammonia (NH₃) 5 per cent; the following rules and regulations have been made and were promulgated by the Department of Agriculture on December 8, 1927.

The Act is to be enforced by the Food, Drug & Insecticide Administration, Department of Agriculture.

Regulation I. Definitions: (a) The word "container" as used in these regulations means a retail parcel, package or container suitable for household use and employed exclusively to hold any dangerous caustic or corrosive substance defined in the Act.

(b) The words "suitable for household use" mean and imply adaptability for ready or convenient handling in places where people dwell.

Regulation II. Scope of the Act: The provisions of the Act apply to any container which has been shipped or delivered for shipment in interstate or foreign commerce, as defined in Section 2 (c) of the Act, or which has been received from shipment in such commerce for sale or exchange, or which is sold or offered for sale or held for sale or exchange in any territory or possession or in the District of Columbia.

Regulation III. Labels: (a) The label or sticker shall be so firmly attached to the container that it will remain thereon while the container is being used, and be so placed as readily to attract attention.

(b) The common name of the dangerous caustic or corrosive substance which shall appear on the label or sticker is the name given in Section 2 (a) of the Act or any other name commonly employed to designate and identify such substance.

(c) Preparations within the scope of the Act, bearing trade or fanciful names, shall, in addition, be labeled with the common name of the dangerous caustic or corrosive substance contained therein and comply with all the other requirements of the Act and these regulations.

(d) If the name on the label or sticker is other than that of the manufacturer, it shall be qualified by such words as "packed for", "packed by", "sold by", or "distributed by", as the case may be, or by other appropriate expression.

(e) The following are styles of uncondensed gothic capital letters 24-point size. (These styles may be obtained from Food, Drug & Insecticide Administration, Dept. of Agriculture).

(f) Except as provided in paragraph (g) of this regulation, the container shall in all cases bear upon the label or sticker thereof, immediately following the word "Poison", directions for treatment in the case of internal personal injury; in addition, if the substance may cause external injury, direction for appropriate treat-

ment shall be given. The directions shall prescribe such treatments for personal injury as are sanctioned by competent medical authority and the materials called for by such directions shall be, whenever practicable, such as are usually available in the household.

(g) Manufacturers and wholesalers only, at the time of shipment or delivery for shipment, are exempted from placing directions for treatment on the label or sticker of any container for other than household use, but in any event the information required by Section 2 (b), (1), (2) and (3) of the Act and these regulations shall be given.

(h) A person who receives from a manufacturer or wholesaler any container which under the conditions set forth in Section 2 (b) (4) of the Act and Regulation III (g) does not bear at the time of shipment directions on the label or sticker if he offers such container for general sale or exchange.

Regulation IV. Guaranty: (a) If a guaranty in respect to any specific lot of dangerous caustic or corrosive substances be given, it shall be incorporated in or attached to the bill of sale, invoice or other schedule bearing date and the name and quantity of the substance sold, and shall not appear on the label or package.

The following are forms of specific guarantees:

(1) Substances for both household use and for other than household use:

The undersigned guarantees that the retail parcels, packages or containers of the dangerous caustic or corrosive substance or substances listed herein (or specifying the substances) are not misbranded within the meaning of the Federal Caustic Poison Act.

(Signature and address of guarantor)

(2) Substances for other than household use. This form may be issued only by a manufacturer or wholesaler (See Regulation III, (g) and (h)).

The dangerous caustic or corrosive substance or substances listed herein (or specifying the substances) in retail parcels, packages or containers suitable for household use are for other than household use, and are guaranteed not to be misbranded within the meaning of the Federal Caustic Poison Act.

(Name and address of manufacturer or wholesaler)

(b) In lieu of a particular guaranty for each lot of dangerous caustic or corrosive substances, a general continuing guaranty may be furnished by the guarantor to actual or prospective purchasers.

The following are forms of continuing guarantees:

(1) Substances for both household use and for other than household use:

The undersigned guarantees that the retail parcels, packages or containers of the dangerous caustic or corrosive substance or substances to be sold to are not misbranded within the meaning of the Federal Caustic Poison Act.

(Date) (Signature and address of guarantor)

(2) Substances for other than household use. This form may be issued only by a manufacturer or wholesaler. (See Regulation III, (g) and (h).

The dangerous caustic or corrosive substance or substances in retail parcels, package or containers suitable for household use to be sold to are for other than household use, and are guaranteed not to be misbranded within the meaning of the Federal Caustic Poison Act.

(Date) (Signature and address of manufacturer or wholesaler).

Regulation V. Collection of Samples: (a) Sample for examination by or under the direction and supervision of the Food, Drug and Insecticide Administration shall be collected by—

(1) An authorized agent in the employ of the United States Department of Agriculture.

(2) Any officer of any state, territory or possession or of the District of Columbia authorized by the Secretary of the United States Department of Agriculture for the purpose.

(b) Caustic or corrosive substances within the scope of this Act may be sampled wherever found.

(c) Samples collected by an authorized agent shall be analyzed at the laboratory designated by the Food, Drug and Insecticide Administration.

(d) Only such samples as are collected in accordance with this regulation may be analyzed by or under the direction and supervision of the Food, Drug and Insecticide Administration.

(e) Upon request one subdivision of the sample, if available shall be delivered to the party or parties interested.

Regulation VI. Investigations: Authorized agents in the employ of the United States Department of Agriculture may make investigations, including the inspection of premises where dangerous caustic and corrosive substances subject to the Act are manufactured, packed, stored or held for sale or distribution and make examinations of freight and other transportation records.

Regulation VII. Analysis: (a) The methods of examination or analysis employed shall be those prescribed by the Association of Official Agricultural Chemists, when applicable, provided, however, that any method of analysis or examination satisfactory to the Food, Drug and Insecticide Administration may be employed.

(b) All percentages stated in the definitions in Section 2 (a) of the Act shall be determined by weight.

Regulation VIII. Hearing: Whenever it appears from the inspection, analysis or test of any container that the provisions of Section 3 or 6 of the Act have been violated and criminal proceedings are contemplated, notice shall be given to the party or parties against whom prosecution is under consideration and to other interested parties, and a date shall be fixed at which such party or parties may be heard. The hearing shall be held at the office of the Food, Drug and Insecticide Administration designated in the notice and shall be private and confined to question of fact. The parties notified may pre-

sent evidence, either oral or written, in person or by attorney, to show cause why the matter should not be referred for prosecution as a violation of the Federal Caustic Poison Act.

No hearing is provided for when the health, medical, or drug officer or agent of any state, territory, or possession, or of the District of Columbia, acts under the authority contained in Section 8 of the Act in reporting a violation direct to the United States Attorney.

Regulation IX. Publication: (a) After judgment of the court in any proceeding under the Act, notice shall be given by publication. Such notice shall include the findings of the court and may include the findings of the analyst and such explanatory statements of facts as the Secretary of Agriculture may deem appropriate.

(b) This publication may be made in the form of a circular, notice, or bulletin, as the Secretary of Agriculture may direct.

(c) If an appeal be taken from the judgment of the court before such publication, that fact shall appear.

Regulation X. Imports: (a) Containers which are offered for import shall in all cases bear labels or stickers having thereon the information required by Section 2 (b), (1), (2) and (3) of the Act and the directions for treatment in the case of personal injury except such directions need not appear on the label or sticker at the time of shipment by a wholesaler or manufacturer for other than household use.

(b) The enforcement of the provisions of the Federal Caustic Poison Act as they relate to imported dangerous caustic or corrosive substances will, as a general rule, be under the direction of the chief of the local inspection stations of the Food, Drug and Insecticide Administration, United States Department of Agriculture and collectors of customs acting as administrative officers in carrying out directions relative to the detention, exportation, and sale or other disposition of such substances and action under the bond in case of noncompliance with the provisions of the Act.

(c) Containers shall not be delivered to the consignee prior to report of examination, unless a bond has been given on the appropriate form for the amount of the full invoice value of such containers, together with the duty thereon, and on refusal of the consignee to return such containers for any cause to the custody of the collector when demanded, for the purpose of excluding them from the country or for any other purpose, the consignee shall pay an amount equal to the sum named in the bond, and such part of the duty, if any, as may be payable as liquidated damages for failure to return to the collector on demand all containers covered by the bond.

(d) As soon as the importer makes entry, the invoices covering containers and the public stores packages shall be made available, with the least possible delay, for inspection by the representative of the station. When no sample is desired, the invoice shall be stamped by the station "No sample desired, Food, Drug and Insecticide Administration, U. S. Department of Agriculture, per (initials of inspecting officer)."

(e) On the same day that samples requested by the station, the collector or appraiser shall notify the importer that samples will be taken, that the containers must be held intact pending a notice of the result of inspection and analysis, and that in case the containers do not comply with the requirements of the Federal Caustic Poison Act, they must be returned to the collector for disposition. This notification may be given by the collector or appraiser through individual notices to the importer or by suitable bulletin notices posted daily in the customhouse.

(f) **No Violation. Release:** As soon as examination of

(Continued on Page 932)

[News and Markets Section]

"Muscle Shoals Useless For Fertilizers"--Jardine

Statement Made In a Letter Discussing Muscle Shoals Situation—Synthetic Developments Has Voided Its Usefulness—Advises Disposal of Property With Use of Income For Solution of Fertilizer Problem.

(Special to CHEMICAL MARKETS)

Washington, D. C., Dec. 21—Secretary of Agriculture Jardine believes that Muscle Shoals is no longer significant for fertilizer purposes, because of the development of the synthetic ammonia process for the fixation of nitrogen in this country. In a letter to S. S. Wyer, consulting engineer of Columbus, Ohio, discussing the fundamentals of our fertilizer problem, Mr. Jardine says:

"In fixing nitrogen from the atmosphere, the art has rapidly changed from the original arc process, where cheap electric power was a dominating factor, to the later synthetic ammonia process requiring only 1/16 of the power of the former, and where coal and economic position are of much more importance than electric power by itself. The much-discussed Muscle Shoals project of the United States Government, based on electric power, could furnish but 1/5 of the nitrogen used in commercial fertilizers in the United States and 8/10 of 1 per cent of the nitrogen used by our farmers.

"Research and development have vastly altered the situation and it has been difficult for the public to recognize the changed conditions. We are convinced that there are cheaper methods of manufacturing fertilizer than under the set up at Muscle Shoals. A sound solution of Muscle Shoals would be to dispose of the power to the best advantage and utilize the income in the broad solution of the fertilizer problems."

Mr. Jardine's letter is part of the booklet "Fundamentals of Our Fertilizer Problem", prepared by Samuel S. Wyer for the Fuel-Power-Transportation Educational Foundation that was created by the Ohio Chamber of Commerce, Columbus, Ohio, copies of which were made public today.

The facts set forth in the 36 paragraphs of the booklet will greatly aid the public to recognize the changed conditions. In discussing

the human interest in and dependence upon the soil, the annual needs for nitrogen in the United States for agriculture alone are put at nine million tons. The nitrogen returned to the soil from manures, legumes, bacterial action, and rain are put at 5,250 thousand tons. Commercial fertilizer supplies about 216 thousand tons, showing a gradual depletion of our soil to the extent of more than 3½ million tons annually, and consequently the importance of increased nitrate supplies. The sources of nitrogen from Chilean nitrate, from bituminous coal, and from nitrogen from the air are then presented in a clear and concise manner, followed by significant statements relative to Muscle Shoals and the fertilizer problem. To quote from the bulletin:

"If we stopped our present barbarous methods of burning raw bituminous coal, with the resulting unnecessary domestic smoke nuisance and instead took the by-products out of the domestic coal and used the residue coke, we could save 4 times as much nitrogen as could have been made at Muscle Shoals.

"In brief, the changes in the art of nitrogen fixation have been so rapid that most of the Muscle Shoals set-up is out of date and to talk of cheaper fertilizer here for the farmer is merely creating a false hope."

Potash and phosphate and the problem of concentrated fertilizer are not over-looked, while the statistics graphically presented showing the distribution of the fertilizer industry in the United States and sales by states throw additional light on the fertilizer problem.

INSECTICIDE MAKERS ELECT H. W. HAMILTON

H. W. Hamilton, production manager, White Tar Co. of N. J., was elected president, succeeding Fred A. Hoyt who had served three terms, and Harry W. Cole, Baird & McGuire, Inc., re-elected secretary, at the fourteenth annual meeting of Insecticide and Disinfectant

Manufacturers' Association in New York last week. Other officers elected were Evans E. A. Stone, Standard Oil Co. of N. J., first vice-president; J. W. Bailey, Tanglefoot Co., second vice-president; and Robert W. Jordan, Wm. E. Jordan & Bro., treasurer. Thirty-six of the members participated in an exhibit which was held in conjunction with the convention while registration of members and guests who attended the three day session totaled 106.

In addition to reports of officers and committees relative to the association's work and interests, the convention was addressed by T. O. Grisell, George Batten Co., on "Budgetary Control of Sales and Advertising"; by David H. Sloane, secretary, Association of Printing Ink Manufacturers, on "Cost Finding Methods"; R. C. Edlund, manager, Association of Soap and Glycerine Producers, on "Cooperative Advertising and Publicity"; R. D. Keim, general sales manager, Squibb & Co., on "Salesmen and Salesmanship"; Dr. W. M. MacKellar, Department of Agriculture, on "Tick Eradication"; and Capt. James H. Bogart, Chemical Warfare Service, U. S. A., on "Control of Insect Pests".

A feature of the three-day meeting, was a testimonial banquet given on the evening of Dec. 13, to Dr. J. K. Hayward, U. S. Dept. of Agriculture, at which time J. W. Bailey, A. O. Ponder, Dr. George F. Reddish, Harry W. Cole, and others spoke in honor of the guest of the evening.

Work on the plant of Atmospheric Nitrogen Co., at Hopewell, Va., is going forward rapidly. Night and day shifts are being used, and there are large numbers of men employed in these giant shifts. In order to work at night flood lights have been installed.

The large power plant is going up rapidly. Two storage tanks for water, said to be the largest in the world, are being erected. The office building of the Atmospheric Nitrogen Co. is said to be modern in every respect. The first unit must be completed by Jan. 1, 1929. One steel building has been erected and another five-story building is under erection.

BRITISH CONTEMPLATE NITROGEN INCREASE

(Special to CHEMICAL MARKETS)

Washington, D. C., Dec. 21—An additional 100,000 tons of nitrates a year are provided for in extensions to be started shortly by Imperial Chemical Industries, Ltd. at the plant of their subsidiary Synthetic Ammonia Nitrates, Ltd. at Billingham-on-Tees, reports Trade Commissioner Homer S. Fox, London. The new extension is expected to be completed by 1930, when it will give employment to 10,000 more persons. It is said that 25,000 tons of structural steel have already been ordered from a British manufacturer for the new construction.

Announcement of this extension is interesting in view of the statement in the Annual Report of the British Sulphate of Ammonia Federation recently issued, and again mentioned in the address of the Chairman at the Annual Meeting of the Federation, to the effect that a further very large increase in the output of synthetic nitrogen is anticipated during the current year, amounting to probably about 18 per cent over the world total output for the immediately preceding year, which in turn accounted for a 17 per cent increase over 1925-1926.

Also it was pointed out that a still further increase is expected during the year 1928-29, even if only a portion of the programmes already announced by synthetic nitrogen producers in various countries is realized. The Chairman of the Federation added that if the rate of increase in consumption in the past is any guide, it seems more than doubtful whether the full output announced for 1928-29 can be consumed, and that, therefore, a difficult situation for producers might arise unless some restriction in production can be brought about.

Stein Hall & Co., New York, held its fifth annual sales convention in New York December 14 to 16. There was an attendance of fifty managers and salesmen from the eleven branches maintained by the company at Boston, Philadelphia, Chicago, and other cities. Luncheon was served daily at the Belmont Hotel and Friday night the visitors were entertained at the Ziegfeld Theatre.

Dr. Charles H. Herty, Chemical Foundation, and Dr. William Jay Hale addressed the naval stores section, Savannah Board of Trade, last week.

Puritan Rubber Co., Trenton, N. J., has filed plans for a new one-story addition, estimated to cost about \$30,000.

Commerce Dept. Ideas on Conflicting Cartel Rumors

Express Opinion That European Movements Should Cause No Great Concern Here—Agents Abroad Instructed To Report All Details Which Develop—Believe That Ultimate Consummation is Inevitable—Conflicting Report Testimony to Agents Watchfulness Abroad.

Conflicting and indefinite reports on the progress of the European chemical cartel movement are not causing officials of the Department of Commerce great concern or perplexity. Opinion in Washington is that the chemical industries of the leading nations of Europe are working toward a community of interest; that consummation of this idea on some working basis is inevitable, and that regardless of what interests may join or withdraw at any given time, and regardless of the terms of agreement that may be placed on paper, the European chemical cartel is a fact and should be recognized as such.

The European agents of the Department of Commerce have been instructed to report at once any details of the movement toward international industrial combines. In the past week the department has received cables from its chemical trade commissioners in Paris, London and Berlin regarding developments of the cartel. From Paris comes word that British interests are reported to be entering a compact with French and German interests. From Berlin the report is that the attitude of the British interests is delaying action. The London office cables that it can obtain no indication as to the intention of the British interests. It is generally believed, however, that the British government is still reluctant to sanction membership of the British chemical industry in an international combine.

These reports and similar words circulated from private sources are taken by the Chemical Division of the Bureau of Foreign and Domestic Commerce, not as an indication that its foreign reporting machinery is at fault, but rather as proof that efforts toward strengthening the cartel plan are being made by various interests. That the details of the international cartel plan would involve great difficulty and perhaps many setbacks was expected, and it was evident that negotiations would be of a very general nature at first and would be conducted in the strictest secrecy.

Just what nations join the cartel today or drop out tomorrow, or the terms of the agreement signed, are only passing details in the light of the whole cartel movement in Europe, in the opinion of officials here. The important fact is that the movement for international industrial co-operation is actually going on, and they

point to the prevalence of rumors and the diverse reports as evidence that active negotiations are now under way, which in some form or other will eventually accomplish the desired end.

CHANDLER MEDAL AWARDED TO GOMBERG

"Free Radicles in Chemistry—Past and Present" was the title of the lecture delivered by Prof. Moses Gomberg, head of the Chemistry Department, University of Michigan, on the occasion of his being presented with the Chandler Medal on Friday evening Dec. 16, at Havermeyer Hall, Columbia University, New York.

The Chandler Medal provided by the Charles F. Chandler Foundation and awarded annually by Columbia University in recognition of achievement in chemical science was established in 1910 and has previously been awarded to Leo H. Baekland, W. F. Hillebrand, F. Gowland Hopkins, Edgar F. Smith, Robert E. Swain, E. C. Kendall and S. W. Parr.

In his attempt to prepare certain organic compounds, Dr. Gomberg discovered, about 1900, a very interesting chemical behavior of the element carbon. In endeavoring to account for this property he suggested the idea tri-carbon and the existence of free organic radicals. To the organic chemist his announcements were revolutionary and served to stimulate research probably more than anything else since Kekule proposed his atomic linkage idea and benzene theory. The influence of Dr. Gomberg's researches and ideas is now easily recognized in many of our current theories in chemistry.

Celanese Corp. of America, near Cumberland, Md., has plans in progress for the erection of additional buildings at its rayon mill, to be two and three-story, reported to cost in excess of \$1,000,000, with machinery. It is purposed to ask bids on general contract in about 30 days.

National Ammonia Co., 3600 North Broadway, St. Louis, Mo., plans the erection of a new one-story addition, 75 x 150 ft., including improvements and alterations in the present plant. The entire project will cost approximately \$45,000.

Report Of Vast Texas Potash Beds Is Confirmed

Director of Economic Geology Authority For Statement That Supply Will Last 250 Years—Government Aid No Longer Needed—Beds Situated Near Well Founded City—Facilities For Extraction Are Good.

Potash research in Texas has reached the point where it is definitely known that in Midland County, there is sufficient quantity in sight to meet the demands of the United States at its present consumption for 250 years according to Dr. E. H. Sellards, Austin, director, Bureau of Economic Geology. This statement was concurred with by Dr. E. P. Schoch, director of the Industrial Chemistry Experiment Station of the University of Texas. Dr. Sellards has devoted much time during the last several years to potash investigations, both in Germany and Texas. The discovery of commercial beds of potash in Midland County is so pronounced that financial aid for further research on the part of the federal government is not needed, Drs. Sellards and Schoch insist. In fact, they think any Congressional appropriation for potash investigation will tend to discourage development of operations by private capital. The joint statement of Sellards and Schoch says:

"Mineable potash sufficient to meet the demands of the United States at its present consumption for the next 250 years is found in Midland County, Texas.

"The first mineable layer of potash minerals was found in West Texas and the New Mexico areas in April, 1926, when drill cores produced by the Standard Potash Co. of Dallas revealed a five-foot bed of practically pure polyhalite at a depth of 2,075 to 2,080 feet in the western part of Midland County. Later a second well was drilled about three miles farther west and cores showed an 11-foot layer of the mineral composed of 60% soluble salts containing 10% potassium oxide at a depth of 1,980 to 1,991 feet and a three-foot layer of pure polyhalite at a depth of 2,172 to 2,175 feet. The latter layer corresponds to the five-foot layer of polyhalite in the first well. Further drillings in the second well revealed another three foot layer of the mineral and a 13-foot layer composed on an average of one-third of polyhalite and two-thirds salt.

"These deposits naturally will be mined like coal. The depths of the layers, which are from 1,900 to 2,300 feet, are within the range of the depth in Europe which is from 1,000 to 3,000 feet. "The refining of the West Texas minerals presents many

new problems but our work has progressed far enough to say that no great obstacles are likely to present themselves. The products—sulfates of potassium, sodium and magnesium—have a different market value from the chlorides. With an oil field within a few miles and the fact that solar evaporation is easily carried out in a dry and rarified atmosphere of the Texas high plains, it is seen that the cost of production should be moderate. The industry will be helped also by the fact that the oil industry has developed the nearby city of Odessa into a large town so that power, supplies and labor may be readily and cheaply obtained there. For all these reasons it is likely that a successful American potash industry soon may be a reality. The amount of potash 'in sight' may be said to be that underlying a strip three miles by six miles long. Within the soluble layer this strip contains 23,000,000 tons of potassium oxide, and in the polyhalite layers about 34,000,000 tons. At present the United States consumption is 250,000 tons of potassium oxide per annum."

P. W. Drackett, founder and director, Drackett Chemical Co., Cincinnati, and a former director of the Chamber of Commerce, died at his residence in Los Angeles, Calif., last week. He had been in ill health for some time. Mr. Drackett established the business that bears his name in 1911, after long connections with two Cincinnati retail drug companies, and was its president for ten years or more. His widow, Mrs. Sally Bolten Drackett, was with him when he died. In addition, he is survived by two sons, a brother and two sisters.

Laurentide Co., Toronto, has taken an option on the main limits of the E. B. Eddy Co., which will round out the former's recently acquired holdings in the Ottawa Valley. This transaction virtually marks completion of the disposal of the Eddy Co., which recently sold its match plant to the International Match Corp.

Washington, D. C., Dec. 21—Federal Products Co. has been awarded the contract by the Navy Department for furnishing 450,000 pounds of Grade B alcohol for smokeless powder at \$19,300 bids for which were received on December 13.

JAPAN CHEMICAL TRADE ASKS GOVERNMENT AID

(Special to CHEMICAL MARKETS)

Tokyo, December 1—Japan Chemical Industry Association, the largest organization of the kind in Japan, has decided to start a movement to urge the Government authorities to adopt positive measures on the promotion of chemical industry. In conformity with a resolution approved by its mass meeting, representatives of this association, headed by Dr. Toyokichi Takamatsu, have paid a round of call on Cabinet Ministers to ask for their efforts for the submission of bills regarding the protection of chemical industry to the next session of the Imperial Diet. The bills drafted by the association include the development of the nitrogen industry, the promotion of the soda ash industry, the protection and encouragement of the synthetic chemical industry, the improvement of the leather and hide industry, the establishment of a permanent oil policy, and the protection of dyes with special reference to artificial indigo.

Foster-Grant Co., Leominster, Mass., plans the erection of an addition to its celluloid goods factory, to be one-story, estimated to cost \$40,000, with machinery.

Linseed Association, New York, held its sixtieth annual meeting and dinner in New York last week. E. J. Cornish, president, National Lead Co., H. G. O. Dunham, and B. A. Levett addressed the meeting which was attended by thirty-three members and guests. The following officers were re-elected: George W. Fortmeyer, president; H. G. O. Dunham and F. A. Marsh, vice-presidents; and Thomas J. Hastings, secretary-treasurer.

Montreal, Que.—Immediately after the annual meeting of Canadian Industrial Alcohol, Ltd., on Dec. 20, a special meeting will be held to pass a resolution annulling the voting power of a block of unissued stock, thus concentrating the voting strength in the outstanding shares. This latter stock, amounting to about 500,000 shares, if ever issued, will be without voting power.

Geo. K. Eastman, pres., Eastman Kodak Co., Rochester, sailed Dec. 15 on the "Berengaria" on the first leg of an African hunting trip. He was accompanied by Mr. and Mrs. Martin Johnson, naturalists and hunters.

Wadsworth-Howland Co., Chicago, has changed its name to the Jewel Paint & Varnish Co.

NEW ENGLAND DYESTUFF BUSINESS DECREASING

In view of the fact that the principal products of the dyestuffs industry in New England are dyestuffs, gums, dextrines, and sizing for textiles, including household dyes, and because the conditions in the textile industry have been so unfavorable, and since changes in the nature of the demand have caused decreases in the sales during the past few years, two-thirds of the dyestuffs establishments in New England, which reported in the recent survey conducted by the United States Department of Commerce, in co-operation with the New England Council, reported lessened sales. Total sales in 1925, however, were 5 per cent greater than those in 1921, and where increases have been reported it has been due mostly to lower production costs and extension of territories.

Of the plants in the New England section the average age is 28 years and only one company, formerly a paint concern, has changed from its original use. The principal reasons for locating in New England and remaining there have been the proximity of the market, the availability of the raw materials and the transportation facilities.

NITRATE OF SODA RULING

(Special to CHEMICAL MARKETS)

Washington, D. C., Dec. 21—The rate on nitrate of soda, in carloads, from New York Harbor, N. Y. to White Haven, Pa., has not been found unreasonable, unjustly discriminatory or unduly preferential and prejudicial by the Interstate Commerce Commission in a decision in the case of the Peerless Explosives Co. against the Central Railroad of New Jersey. The complaint has been dismissed.

Colgate & Co., Jersey City, filed suit in the Federal Court in Brooklyn last week alleging infringement by the Procter & Gamble Co., Cincinnati, of a patent for producing soap in bead form, which the complainant uses under exclusive licenses from the Industrial Spray Drying Corp. and the Spray Dryer Process Corp.

Irene du Pont recently gave \$45,000 to make possible extensive research in cancer at the hospitals and laboratories of the University of Pennsylvania.

Hercules Powder Co. has announced that naval stores production at its Brunswick, Ga., plant will be reduced twenty per cent.

C. H. DICKINSON RESIGNS

Chas. H. Dickinson has severed his connections with Dickinson, Renouf & Co., New York. Mr. Dickinson has not announced what his plans for the future will be. The company will continue to operate under the present title, pending application for change



Chas. H. Dickinson

of corporate name, notice of which will be given to the trade in due course.

JAPANESE DYE MAKER ASKS NEW SUBSIDY

(Special to CHEMICAL MARKETS)

Tokyo, Japan, Nov. 21—The Nippon Senryo Kaisha (Japan Dyestuff Company), Osaka, has newly manufactured four kinds of dyes, Victoria Blue, Direct Brown M, Ponceau, and Direct Fast Black. Petition has been presented to the Ministry of Commerce and Industry by the company asking for the subsidy fixed by the Government. It is expected the matter will be sanctioned soon. The annual demand for Victoria Blue is estimated at 15,000 kin, that for Direct Brown M 2,000 kin, that for Ponceau 100,000 kin and that for Direct Fast Black 40,000 kin. Out of 27 most important dyes in Japan, 12 have been completely manufactured here.

According to the official statistics of Greece, imports of ammonium sulfate during 1926 amounted to 10,070 kilos entering through the port of Patras. The total amount of fertilizers imported by Greece during the that year was 9,639 metric tons as compared with 42,408 metric tons during 1925.

Harold W. Frevert is now chemist at Holland Tunnel for the New York and New Jersey Bridge and Tunnel Commissions.

Estate of the late Henry K. Goetchius announces a bequest of \$50,000 to Yale University.

ACID PHOSPHATE NAME CHANGE MEETS APPROVAL

Washington, D. C., Dec. 19—General approval of changing the name of "acid phosphate" to "superphosphate" with the old name to be carried in parentheses during the transition has been given by editors of farm papers, agronomists, experiment station directors and others in letters to Charles J. Brand, executive secretary and treasurer of the National Fertilizer association, who recently requested the cooperation of all agricultural workers and fertilizer manufacturers to make the change.

Mr. Brand explains that many farmers, especially in "pioneer" territory where commercial fertilizers are just beginning to be used, have a natural, inherent fear of all things acid, which makes them hesitate to use this material because they think it is acid.

NEW MUSCLE SHOALS BILL

(Special to CHEMICAL MARKETS)

Washington, D. C., Dec. 21—Senator Norris, Nebraska, has introduced a bill in the Upper House "providing for the completion of Dam Numbered 2 and the stream plant at the nitrate numbered 2 in the vicinity of Muscle Shoals for the manufacture and distribution of fertilizer and for other purposes." The bill has been referred to the Senate Committee of Agriculture and Forestry.

Application of Charles Bogin for patent on an improvement in nitrocellulose lacquer compositions was recently rejected because his composition comprised among other ingredients "a nitrocellulose solvent boiling below 100 degrees". Only one solvent of this type, acetone, was disclosed and his claim rejected as being broader than the invention.

C. E. Adams, president, Air Reduction Co. and chairman of the board, U. S. Industrial Alcohol Corp., when questioned on the rumor that the two corporations were about to consolidate said: "There is nothing of the kind in prospect at present," reports "Wall St. Journal."

National Paint, Oil & Varnish Association and the American Paint & Varnish Manufacturers' Association have decided to hold their 1928 conventions in Detroit the week of Oct. 15.

Dr. Russell Heuer, University of Pennsylvania, addressed the Philadelphia section, American Chemical Society, on the subject of "Refractories" at its meeting last week.

**ALCOHOL OUTPUT HELD
TO 40 PER CENT BY JULY 1**

For the purpose of rendering effective provisions of treasury decision No. 13, which fixed the limits of 1928 alcohol production, prohibition administrators will in each case where renewal permit is or has been issued notify the proprietor of the plant concerned that the production at such plant for the first six months of the calendar year 1928 must not exceed 40 per cent of the quantity of alcohol authorized to be produced at the plant during the entire year, according to a recent announcement made by Dr. J. M. Doran, Commissioner of Prohibition. Proprietors of alcohol plants should also be notified that in any case where the quantity of alcohol carried over from the year 1927 to the year 1928 exceeds 10 per cent of the quantity authorized to be produced at the plant during 1928, such excess over 10 per cent shall be deducted from the allotment for the year. For example, if the quantity carried over equals 15 per cent of the allotment for the year, 5 per cent of such allotment shall be deducted, and the authorized production for the calendar year 1928 reduced accordingly. In determining the quantity carried forward in any case there should be included (1) all ethyl alcohol held in the industrial alcohol plant and in any bonded warehouse or denaturing plant conducted or operated by the proprietor of the alcohol plant concerned, whether such warehouse or denaturing plant is operated at the same location as the alcohol plant or elsewhere, and whether the ethyl alcohol so held was produced by the proprietor of the alcohol plant or procured by him and transferred to such warehouse or denaturing plant in bond, and (2) all denatured alcohol, wherever located, owned, possessed or controlled by the proprietor of the alcohol plant.

In addition to forms 1488, 1443A and 1443B, showing all alcohol stored in industrial alcohol plants and bonded warehouses, and forms 1468A, 1468B and 1478, covering all alcohol and denatured alcohol held in denaturing plants and bonded storerooms, there must be filed by the proprietor of each industrial alcohol plant with the administrator of the district in which the plant is situated, for transmission to the commissioner, on or before January 10, 1928, a sworn statement showing all denatured alcohol not held in a bonded denaturing plant or storeroom, but owned, possessed or controlled elsewhere by said proprietor.

Nock Chemical Laboratory, Inc., Pittsburgh, Pa., plans the early operation of a new plant at Pittsburgh.

SWEDISH SULFATE FUTURE

Better prospects appear in the Swedish sulfate industry, as indicated by new mills under construction and considerable extensions being made to old ones, according to a report from Consul General John Ball Osborne, Stockholm.

The largest of these new mills, at Marma, will have an annual capacity of 40,000 metric tons and will be ready to start production in the spring of 1929. Two other saw mill companies taking over the production of sulfate pulp are Sandvikens Sagsverks A/B and Munksunds A/B. The former, which has already altered its name to Sandvikens Cellulose A/B to indicate its changed activities, has under construction a mill with an annual capacity of 15,000 tons. The site of the new mill is on the Angerman River, near Kramfors, and operations are expected to begin in the spring of 1928.

The company owns about 160,000 acres of forests, from which it will obtain all the timber required for its pulp production. Munksunds A/B, a sawmilling corporation with 1,000,000 crowns (\$268,000) of capital stocks has recently taken over the greater part of the mills and forests owned by A/B Yttersfors-Munksund, which has gone into liquidation. The capacity of the new plant will be about 30,000 tons of pulp annually.

Another sulfate mill is being built at Olshammar, near Askersund, but the production of this plant is intended only for the manufacture of paper by the domestic mills and not for exportation.

The discovery of large sulfur deposits in Asia Minor has been reported to French bankers. If the deposits are as large as the discoverers claim, it will revolutionize the present status of sulfur industry in this country and Italy. The French bankers have been asked to finance its development.

Value of rosin exported to Nagasaki, Japan, from the United States in 1926 was \$112,290 an increase of 45 per cent over the previous year when the value amounted to \$77,041 reports Consul Henry B. Hitchcock.

Jos. F. Peters, head of Buhach Products & Manufacturing Co., Stockton, Cal., passed away early in December.

C. G. Dixon, vice-pres. Wm. S. Gray & Co., returned Dec. 20 on the "Majestic" after a business tour through Europe.

**POLISH SULFURIC ACID
PRODUCTION INCREASES**

(Special to CHEMICAL MARKETS)

Washington, D. C., Dec. 15—

Polish production of sulfuric acid after having slumped to a monthly average of 14,561 tons in 1926, as compared with 17,900 tons in 1925 and 21,299 tons in 1913, has again risen sharply and for the first 9 months of 1927 amounted to an average of 18,050, tons per month, reports Assistant Trade Commissioner L. J. Cochran, Warsaw.

This increase is ascribed to growing domestic demand, since exports, which were hard hit by the outbreak of the Polish-German trade dispute in June 1925, still remain at their previous unsatisfactory level. Recently the domestic sales situation was further improved by the formation of a Sulfuric Acid Syndicate composed of several leading producers.

Following the annual meeting of the board of directors of Merck & Co., Inc., manufacturing chemists, at their main offices, Rahway, N. J., the following officers and directors were elected: Chairman, board of directors, Frederic Rosengarten; president, Geo. W. Merck; treasurer, George W. Perkins; assistant treasurer, Henry Stein; vice presidents, R. E. Gruber, J. J. Kerrigan, J. G. Rosengarten, Jr.; J. Rosin; chief chemist, B. L. Murray; secretary, H. R. Neilson; assistant secretaries, P. McK. Garrison, S. W. Walker; assistant to president, J. A. Garvin.

A capitalization of \$50,000,000 is proposed for the corporation now being organized to operate a consolidation of about 150 yarn mills in five South-eastern States, according to reports from Southern cotton manufacturers.

These manufacturers quoted Frank & Co. of New York, which firm is associated with Flint & Co., also of New York, in developing this merger.

United Indigo and Chemical Co., Ltd., London, current interim ordinary share dividend was placed at a meeting last week at 2½ per cent, unchanged.

Montreal, Que.—Industrial Chemicals, Ltd., has just been incorporated in Montreal, under Federal charter, with a capitalization of \$50,000.

Henry L. Grund Co., Cleveland, has been appointed agent for John R. Anderson & Co., shellac broker, New York.

National Association of Paint Distributors will hold its fourteenth annual convention in New York, Feb. 20-22.

[The Industry's Finances]

Fertilizer Security Advance Index to Conditions

Practically all Important Stocks Have Stiffened Recently—American Cyanamid Having Good Year—Proctor & Gamble Issue—Freeport Extra Dividend—Archer-Daniels-Midland May Earn Double Dividend.

Baltimore, Dec. 15.—Advances that have taken place in the stocks of Davison Chemical Co. and other fertilizer manufacturing corporations are taken as an indication not only that the industry is in a better condition but that price advances in materials and manufactured products may be looked for. In fact, the list has already stiffened to an appreciable extent, and a belief prevails that a further readjustment will come. The quotations on acid phosphate are now nominally \$8.50 per ton for run of pile and \$9 for 16 per cent milled and screened stocks, and while reports are current of business having been done at \$8 per ton for run of pile, or even slightly under \$8, the fact remains that even the lowest quotation mentioned is higher than the levels that prevailed during the time of extreme unsettlement.

Earnings and business of the American Cyanamid Co. in the current fiscal year are running ahead of the same period in the fiscal year ended June 30, 1927. In the past fiscal year the company earned \$1,356,231, equal after all charges to \$3.09 a share on 329,715 common shares against \$1,652,240, or \$3.99 a share earned in 1926.

California Ink Co. has taken over the ink properties of the Paraffine Companies, Inc., San Francisco. The State Corporation permit provides for the sale of 6500 shares of California

Ink, class B, to Paraffine Companies in exchange for the transfer and assignment of properties. California Ink Co. was organized in 1919 as a combine of the California Ink Co., the California Aniline & Chemical Co., and the printing and lithographic ink business of George D. Graham.

Lamotte du Pont, president, E. I. du Pont de Nemours & Co., returning from a short business trip abroad on the Berengaria last week, stated that earnings of his company in 1927 would be somewhat larger than last year.

He said also that the outlook was for a continuation of this rate of earnings, but added that the prospects were somewhat in doubt in view of the presidential year head.

Mr. du Pont observed a very much improved condition in France. People are working and appear a lot more contented than when he was there a few years ago.

Archer-Daniels-Midland Co. has prospects of a double dividend earning of \$3.00 a share on the 200,000 shares of outstanding common stock, according to a statement in a recent issue of a New York financial paper. Where as in the last several years linseed oil companies have often suffered through fluctuations in price levels in the past year have improved according to the companies.

McAndrews & Forbes has declared an extra dividend of 90c a share on the common and the regular quarterly dividends of 65c a share on the common stock and \$1.50 a share on the preferred stock, all payable Jan. 14 to record of Dec. 31.

Freeport Texas Co. declared an extra dividend of 75 cents and the regular quarterly dividend of \$1, both payable February 1 to stock of record January 4. Previously the company had been paying extra dividends of 50 should be much better than 1927."

Devoo & Reynolds Co., New York, has changed the stock of record date on the dividends on the Class A common and first preferred stocks to Dec. 21.

A year ago Freeport Texas was paying nothing to shareholders, says "Wall St. Journal". Recently it declared the regular quarterly dividend of \$1 and an extra of 75 cents a share. Last year the stock sold below \$20 a share. It is now up 400% from that level.

Early this year when Freeport was quoted in the 30s there was heavy short selling, and much of this came from persons who should know something about the sulfur industry. When the stock crossed 50 there was no more selling and considerable buying by some who sold short lower down. There has been selling all the way up to its present price and few shorts have had a chance to get out at a profit.

The statement of Freeport for the current year will be interesting, but balance sheets of following years will be even more interesting. Freeport has fooled many who, early in the year, predicted dividends even lower than now being paid would be impossible.

Procter & Gamble will issue \$6,689,800 of its 6 per cent cumulative preferred stock to purchase the William Waltke Co. soap manufacturers of St. Louis, according to St. Louis advices. The Waltke Co. has \$1,500,000 of 7 per cent preferred and 100,000 no par shares outstanding. The preferred will receive \$110 and dividends.

Procter & Gamble recently called for cancellation \$9,931,000 of the preferred stock outstanding from an authorized issue of \$45,750,000.

At the January meeting of the board of directors of Davison Chemical Co., Baltimore, two officials of the Pyrites Company of America will be elected members, the two being the Earl of Denbigh and A. D. Ledoux. Pyrites Company is the American subsidiary of the Rio Tinto Co., Ltd., London.

Roessler and Hasslacher Chem. Co., New York, has increased its capital from 60,000 shares to 210,000 shares of which 60,000 shares are preferred and 150,000 common with no par value.

British Celanese has sold the unused balance of £500,000 7½% convertible second mortgage bonds and has also made a private issue of 350,000 shares of common stock.

U. S. Industrial Alcohol Co., has announced regular quarterly dividend of 1¼ per cent on preferred capital stock, payable Jan. 16, to stock of record Dec. 31, 1927.

[Foreign Exchange]

	Par	Current
Great Britain (pound sterling) ..	4.866	4.871
France (franc) ..	.193	.039
Italy (lira) ..	.193	.054
Belgium (franc) ..	.198	.140
Czechoslovakia (crown) per 100	20.30	2.96
Denmark (krone) ..	.268	.268
Germany (mark) ..	.238	.239
Holland (florin) ..	.402	.404
Poland (zloty) ..	.193	.113
Norway (krone) ..	.258	.266
Spain (peseta) ..	.193	.167
Sweden (krone) ..	.268	.270
Switzerland (franc) ..	.193	.193
Argentina (peso) ..	.414	.427
Brazil (milreis) ..	.324	.120
Japan (yen) ..	.499	.461
India (rupee) ..	.485	.368
China (Silver dollar, Hongkong)	.789	.505
(Tael—Peking, silver) ..	1.146	.680
(Tael—Shanghai, silver) ..	1.986	.641

Stocks & Bonds

	1926		1927		Current	
	High	Low	High	Low	Bid	Asked
*Air Reduction	146 1/2	107 1/2	199 1/2	134 1/2	187 1/2	189
*Allied Chem	148 1/2	106	169 1/2	131	152 1/2	152 1/2
*Allied Chem pfd	122 1/2	118 1/2	124 1/2	120	121 1/2	122 1/2
*Allied Ag Chem	34 1/2	9	17 1/2	8 1/2	16 1/2	17 1/2
*Am. Ag. Chem. pfd	96 1/2	35 1/2	62	28 1/2	61 1/2	62
Anaconda	51 1/2	41 1/2	55	41 1/2	54 1/2	55
*Am. Cyan "A"	46	36 1/2	40 1/2	25	40	40 1/2
*Am. Cyan "B"	47	35 1/2	40	29	38 1/2	40
*Am. Linseed	52 1/2	25 1/2	70 1/2	20 1/2	65 1/2	66
*Am. Linseed pfd	87	68 1/2	91 1/2	46 1/2	86	87
*Am. Metals	57 1/2	42 1/2	46 1/2	38	45 1/2	46
*Am. Metals pfd	120	113 1/2	117 1/2	107	112 1/2	117 1/2
Am Rayon Prod.	35 1/2	29 1/2	16	3 1/2	13 1/2	14
*Am. Smelting	152	109 1/2	180 1/2	132 1/2	175 1/2	175 1/2
*Am. Smelting pfd	122 1/2	112 1/2	132 1/2	119 1/2	128 1/2	129
*Am. Zinc	12 1/2	5 1/2	10 1/2	5 1/2	7 1/2	7 1/2
*Am. Zinc pfd	54 1/2	20	51 1/2	29	42	44
Anglo Chil. Nitrate	...	...	31 1/2	14	26	27 1/2
*Archer-Dan-Mid.	34 1/2	36	61	38	60	60 1/2
*Archer-Dan-Mid. pfd	108	100	113	106	113	...
*Atlas Powder	64	54	65 1/2	56 1/2	62	63
*Atlas Powder pfd	97 1/2	96	107	98	103 1/2	104 1/2
Butte Lead & Copper	6 1/2	4	5 1/2	3 1/2	4 1/2	4 1/2
Butte & Sup. Copper	16 1/2	7 1/2	11 1/2	7 1/2	10 1/2	11
*By-Products Coke 2	93	53	92 1/2	66	71 1/2	72
*By-Products Co., pfd	...	...	115	105	109	112
*Calla L. & Z	2 1/2	1 1/2	2 1/2	1 1/2	1 1/2	1 1/2
Canad. Ind.	20	16 1/2	42	14	38	38
Canad. Salt	145	131	115	105	105	115
Casolin Co.	...	...	191	149	155	165
Calumet & Hecla	18 1/2	13 1/2	23	14 1/2	22 1/2	23
Celluloid Corp.	26	16	121 1/2	16	107	116
Celluloid Corp. pfd	8	55	110	63	86 1/2	87
Cert. Prod. 1st pfd	106 1/2	100	118 1/2	106	115	118 1/2
*Certainteed Prod.	49 1/2	36 1/2	55 1/2	42	55	55 1/2
Charcoal Iron	33 1/2	24	40	8	36	40
Chesbro Mfg Co.	73	65	123	73	117	120
Chile Copper	36 1/2	30	39 1/2	33 1/2	38 1/2	38 1/2
Cleve Cliff Iron	75	69 1/2	106 1/2	86	106	106 1/2
*Columb. Carbon	70 1/2	55 1/2	100	68 1/2	95	95 1/2
*Com. Sol.	...	...	203	160	167 1/2	168
*Corn Prod.	51 1/2	35 1/2	66 1/2	46 1/2	64	64 1/2
*Corn Prod. pfd	130 1/2	122 1/2	140	128	137 1/2	139
*Davison Chem.	46 1/2	27 1/2	41 1/2	26 1/2	41	41 1/2
*Davison Chem., pfd	...	...	43 1/2	43	43 1/2	43 1/2
*Devoe & Rayn A	104 1/2	31	42 1/2	36 1/2	40	42
*Devoe & Rayn 1st pfd	105	40	113	101	109 1/2	111
*Dow Chem.	100	74	108	98 1/2	108	108
*DuPont deb.	110 1/2	100 1/2	115 1/2	105 1/2	117	118
*DuPont de Nem.	181 1/2	157	343 1/2	168	316 1/2	317
*Eastman Kodak	136 1/2	106 1/2	175 1/2	126 1/2	167	168
Eastman Kodak pfd	136 1/2	106 1/2	175 1/2	126 1/2	128 1/2	130
*Freeport Texas	36	19 1/2	104 1/2	36	104 1/2	104 1/2
*Gen. Asphalt	94 1/2	50	96 1/2	72 1/2	77 1/2	78 1/2
*Gen. Asphalt pfd	130	94 1/2	114 1/2	113	118 1/2	123 1/2
*Glidden pfd.	...	...	100	84	74 1/2	96
Glidden pfd.	...	...	100	84	95 1/2	96
*Gold Dust	56 1/2	41 1/2	69 1/2	42	74 1/2	75
Grasselli	145	120	135	125	135	135
Grasselli, pfd.	103 1/2	102	108 1/2	100	107	108 1/2
Hercules Powd. pfd.	115	110	122	115	118 1/2	121
*Household Prod.	48 1/2	40	67	43 1/2	65	64
Industrial Rayon	19 1/2	10 1/2	19 1/2	4 1/2	17 1/2	18 1/2
International Agr.	26 1/2	9 1/2	15	6 1/2	14 1/2	15
*Int'l. Agr. pfd.	95	57	65	33	62	63
International Nickel pfd.	...	...	110	103 1/2	110	...
Int'l. Salt	84 1/2	61 1/2	72	64 1/2	64	70
*Mathieson Alk.	106 1/2	62 1/2	128	82	126	127
*Mathieson Alk. pfd.	105	100	120	103	117 1/2	120
Merck & Co., pfd.	73	50 1/2	86	65	73	76
Merrimac	83	72	88	73	75	84
Miami Copper	17 1/2	11	19	13 1/2	18 1/2	19
*Nat'l. Dist.	34	12 1/2	54	17	76	53
*Nat'l. Dist. pfd.	73 1/2	57	69 1/2	43 1/2	62	62 1/2
*Nat'l. Lead	181	138	200	118	129	130 1/2
*Nat'l. Lead pfd. "A"	120	116	140	117 1/2	136 1/2	140
*Nat'l. Lead pfd. "B"	...	...	116	104 1/2	115 1/2	116
N. J. Zinc	214 1/2	180	206	177	187	187 1/2
Penick & Ford	24	16 1/2	27 1/2	19 1/2	27 1/2	23
Penn Salt	91	71	105	74	98	98
Proc. & Gam.	163	142 1/2	244	157	236	240
Royal Bak. Pdr.	213	190	270	161	250	265
Royal Bak. Pdr., pfd	105 1/2	102	108	99	106	106
*Sherwin-William	108	108 1/2	110	60	70	70
*St. Joseph Lead	48 1/2	36 1/2	42	36	41	42
Silica Gel.	22 1/2	11 1/2	19 1/2	13 1/2	19	19 1/2
Swan & Finch	...	...	30	19 1/2	18	19
*Swift & Co.	110	110	128	100 1/2	124 1/2	125
*Tenn. C. & C.	16	10 1/2	13 1/2	8 1/2	11	11 1/2
Texas Gulf & Sulfur	52 1/2	39	81 1/2	49	76 1/2	77
*Union Carbide	100 1/2	78	150 1/2	98 1/2	147 1/2	148 1/2
United Dyewood Com.	...	...	10	3 1/2	6	7
Un. Gas Imp.	144 1/2	84 1/2	114	106	113 1/2	114
*U. S. Gypsum	166	126	110	90 1/2	86	86 1/2
*U. S. Ind. Al.	84 1/2	45 1/2	110 1/2	69	110	130
*U. S. Ind. Al. pfd.	114 1/2	90 1/2	130	107 1/2	120	130
Va. Car. Chem. Com. 6% pfd.	69	31 1/2	46 1/2	26 1/2	46 1/2	46 1/2
Va. Car. Chem. Com. 7% pfd.	98 1/2	83	90	73	89	90

COMMERCIAL SOLVENTS PROSPECTS ARE BRIGHT

Orders booked by Commercial Solvents Corp. in the last few weeks have shown a substantial improvement, indicating return of a normal volume of business, and the outlook is bright for a good year in 1928, says "Wall St. Journal." Early this fall the normal slowing down in the automobile industry, coupled with a slight hesitation in business generally, caused a sharp falling off in Solvents' orders.

At that time the old plant at Terre Haute, containing 52 fermenters was closed down for renovation and to allow the last year substantial additions were made to the main plant at Peoria which increased output of the company by around 40%. The Peoria plant recently added 16 fermenters, making the total there 96.

While profits this year probably will be somewhat disappointing due to the slowing down of sales in the last part of the year, the management is looking forward to a big business in 1928 and has laid plans accordingly.

In the first nine months of this year net profits was \$1,651,503, equal to \$7.58 a share on the 217,722 shares of capital stock. Net in the first half was \$1,215,022, equal to nearly \$6 a share, or at the rate of \$3 per quarter, but net in the third quarter was equal to only \$2 a share, while the showing for the fourth quarter no doubt will be somewhat less. Thus the final net for 1927 probably will be under \$10 a share. This would compare with \$1,707,791 earned in 1926, equal to \$14.58 a share on the 108,861 shares of old Class B stock, after preferred and Class A dividends, or to about \$7 a share on present capitalization.

These earnings are after substantial reserves, considerably larger than needed to cover depreciation charges or taxes. This no doubt is partly responsible for the high price of the stock in relation to its indicated earning power. Like all chemical companies, Solvents is entitled to charge off an unusually large proportion of earnings on account of the rapid changes which frequently occur in the industry.

Production now includes four important products. Of these, butanol is the most important, with an output of 14,000,000 pounds quarterly when the plant is running full. The next most important product is acetone, a by-product with a wide variety of industrial uses of which one of the most important is in the rayon industry. Nearly 30,000,000 pounds a year are produced.

[Industrial Chemicals]

Domestic White Sal Ammoniac Reduced 10c

Producers Announce Reduction Following Strong Imported Competition—Tartaric Acid Easy—Glycerin Quiet—Copper Sulfate and Mercury Strong—Contract Business, Particularly on Alkalies Very Brisk—Tin Salts Unchanged.

Advanced
No advances
Declined
Ammonium Chloride, white, dom, 10c 100 lbs

Trend of the Market

	Today	Two Weeks Ago	Last Month	Last Year	War Peak	Pre-Wa.
Acetic Acid, Glacial, c-1 ... lb.	.11%	.11%	.11%	.11%	.19%	...
Sulfuric Acid, Tanks 66 deg. ton	15.00	15.00	15.00	15.00	55.00	20.00
Amm. Sulfate c-1 NY 100... lbs.	2.40	2.40	2.40	2.50	7.50	2.65
Bleaching Powder, c-1 .100 lbs.	2.00	2.00	2.00	2.00	9.50	1.50
Copper Sulfate c-1 NY 100 ... lbs.	5.00	5.00	5.00	4.75	20.00	4.60
Potash Caustic c-1 Imp. lb.	.07%	.07%	.07%	.07%	.87	.08
Soda Ash, 58 p.c. c-1 .100 lbs.	1.94	1.94	1.94	1.94	3.50	.60
Caustic Soda 76 p.c. c-1 100 lbs.	3.66	3.66	3.66	3.66	9.50	1.42
Potassium Bichromate lb.	.08%	.08%	.08%	.08%	4.65	.06
Sodium Prussiate lb.	.12	.12	.12	.11	1.25	.18
Average	3.046	3.046	3.046	3.012	10.79	2.99

Current Quotations and Comments on Specific Items, Pages 906-910

A voluntary reduction in the price of white ammonium chloride late last week by the domestic producers was the principal item of interest in the industrial chemical field over the past week. No reason was given for the decline but imported competition for what business there is, is undoubtedly a large contributing factor. A weakness was also noted in the spot price of imported tartaric acid and the market continues easy and quiet following the reduction of last week.

Otherwise conditions in general are unchanged. The alkali and acid manufacturers report a healthy volume of business for 1928 in practically all their products. Manufacturers of copper sulfate are refusing to book orders more than sixty days ahead and are experiencing even a better volume of sale than was the case last year at this time. Tin salts are in average demand and unchanged as to price. Glycerin is still neglected and while no sales of dynamite have been reported on which to base the market, shading of the openly quoted price is still believed possible.

Mercury continues in fairly good demand with the price unchanged and the market firm reflecting conditions on the other side. With the holiday season practically here little if any spot business is expected to transpire until after the turn of the year. Price changes are very limited at this time and both buyers and sellers are more interested in next years requirements, with the

former holding down their stocks until after the inventory period.

The capitalization of chemical companies organized under various state laws during November, 1927, amounted to \$6,128,000 according to compilations made by the Journal of Commerce. This compilation compares with \$2,600,000 for October, and \$1,925,000 for the corresponding month a year ago.

The chemical industry of New York State is one of the few which shows a greater payroll for November, 1927, than in November, 1926. Forty-four out of fifty-five industrial classifications had smaller forces in their employ this year during November than during November of the previous year.

BARIUM CARBONATE CASE TO TARIFF COMMISSION

(Special to CHEMICAL MARKETS)

Washington, D. C., Dec. 21—The report on barium carbonate which has been under way at the Tariff Commission has been sent to the Commission by the Advisory Board and is now in final form for approval by the Commission before being sent to the president.

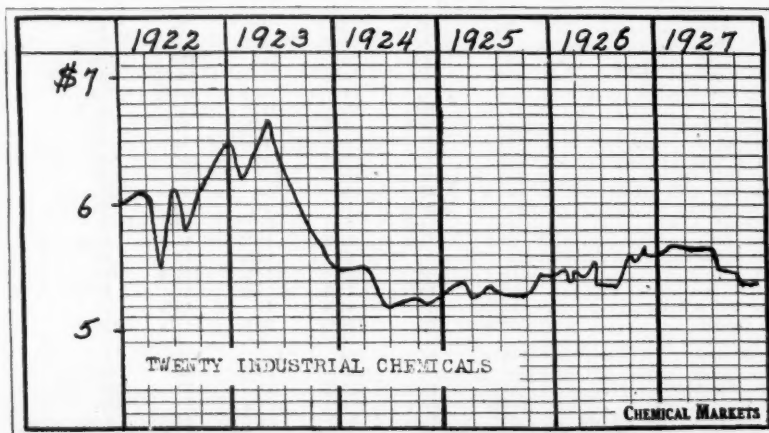
The Commission now has before it for final action, in addition to barium carbonate the report on tartaric acid and cream of tartar and also an application in connection with refined nitrate of potash.

Eaton-Clark Co., Detroit, will celebrate the 90th anniversary of the establishment of the firm by a formal opening and reception on Saturday, Jan. 7 at the company's new offices, 1490 Franklin st. These offices with additional warehouse facilities were actually completed and occupied during last August. All friends of the company who will be in Detroit at that time are invited to inspect the new offices.

Ernest L. Mathy, Pacific Coast, sales manager, Air Reduction Co., was the speaker at the last meeting of the Sales Managers' Association of California held at the Athens Athletic Club on the evening of December 6. He exhibited moving pictures showing the uses of liquid air and gave several laboratory demonstrations.

Revised Federal tax cut figures \$232,735,000 instead of \$236,000,000 formerly announced. Corporation cut will be \$176,000,000, comparing with \$166,000,000 originally estimated.

Long Beach Salt Co., Long Beach, Cal., has purchased the warehouse, machinery and equipment of the Fremont Salt Co., near Toby, Cal.



Butyl Cellosolve and Brush Lacquers

BRUSH lacquers differ from automobile lacquers chiefly in their higher gum content and slower rate of drying.

These two conditions require considerable quantities of high boiling compounds that are good gum and nitrocotton solvents. To meet this need the Carbide and Carbon Chemicals Corporation now offers *Butyl Cellosolve*.

Butyl Cellosolve (Ethylene Glycol mono butyl ether) is an oily liquid of faint, but agreeable odor, boiling at 170° C. It is a powerful solvent for nitrocotton and an excellent solvent for gums and resins. Its dilution ratio for gasoline and petroleum is unusually high. These properties make it an ideal complement to Cellosolve in the manufacture of brushing lacquers.

Brush lacquers made with Cellosolve and Butyl Cellosolve are practically odorless. The rate of drying can be varied from one-half to two hours by regulating the proportions of the two solvents, but in either case the final film will possess high gloss due to the smooth and gradual deposition of gum and nitrocotton as the Butyl Cellosolve evaporates.

Neither Cellosolve nor Butyl Cellosolve contains ester groups. Hydrolysis and the development of acidity is therefore impossible in lacquers made with these solvents, thus eliminating all difficulty such as livering, gelling and corrosion insofar as solvents are concerned.

CARBIDE AND CARBON CHEMICALS CORPORATION
Carbide and Carbon Building, 30 East 42nd Street, New York City



Unit of Union Carbide and Carbon Corporation

[Crudes & Intermediates]

Promising Outlook For Intermediates Next Year

No Visible Signs Of Price Changes To Benefit Consumer—Active Consuming Operations Tend to Strengthen Market—Spot Transaction Very Quiet—Contract Entries Practically Completed.

	Trend of the Market					
	Today	Two Weeks Ago	Last Month	Last Year	War Peak	Pre-War
Benzene, pure tanks wks ...gal.	.21	.21	.21	.24	1.10	.25
Naphthalene flake .....lb.	.05	.05	.05	.05	.16	.03
Phenol Spot .....lb.	.19	.19	.17	.18	1.50	.08
Toluene tanks wks .....gal.	.35	.35	.35	.35	...	...
Aniline Oil 1c-1 .....lb.	.15%	.15%	.15%	.15	1.40	.10½
Alpha-naphthylamine .....lb.	.35	.35	.35	.35	1.28	...
Benzaldehyde .....lb.	.70	.70	.70	.70	...	...
Betanaphthol bbls .....lb.	.24	.24	.24	.24	1.50	.08
Dimethylaniline c-1 .....lb.	.32	.32	.30	.32	1.30	...
Paranitroaniline bbls .....lb.	.48	.48	.48	.52	1.58	.18
Average	0.3047	0.3047	0.302	0.310		

Current Quotations and Comments on Specific Items, Pages 906-910

The local spot market for intermediate chemicals passed through an exceedingly dull week. Activities in the consuming field have been temporarily suspended over the holiday period and in view of the consistent strength of the entire market, factors express the belief that business will return to a normal state after the turn of the year. Meanwhile, contract closings have been made with very little hesitation. Owing to spirited activities in the dyestuff industry, practically all of the agreements for next year have been completed and the outlook is very promising, indicating a firm price range for the early part of the year.

Ortho-toluidine and para-toluidine possesses outstanding firmness. Openly quoted figures for contract business are the absolute lowest price obtainable. The reaction of consumers to the past strength of both items removes any possibility of an advance in price and factors believe that they will remain firm, at this figure for an indefinite period. Para-nitrotoluidine is in a similar position. Intermediate acids are also firmly priced and good movement is anticipated for the next few months. Of these, cresylic acid is outstanding, the material is in somewhat better supply but insufficient to create any weakness in its present price. As a result of increased production abroad, recent imports have been of better size and its future price is dependent upon the size of consuming operations abroad and subsequent amount

of material left for export to this country. Dry colors are moving in fair sized lots. Beta-naphthol is also moving well but some consumers are holding off until the situation in the para-nitroaniline market is clarified. Dianisidine is lower in price, resulting in increased production and cheaper costs.

Du Pont Rayon Co. last week received permission from Virginia Corporation Commission to do business in that state. The company recently acquired land near Richmond upon which it plans to erect an \$8,000,000 plant. Principal office in Virginia will be located at Petersburg, with J. Gordon Bohannon in charge.

A. E. Staley Manufacturing Co., corn products manufacturer, Decatur, Ill., will open an office in Kansas City.

UNITED STATES IMPORTS JAPANESE CREOSOTE OIL

(Special to CHEMICAL MARKETS)

Washington, D. C., Dec. 21—United States imported from the Nagasaki consular district more than 426,000 gallons of creosote oil the first half of 1927, says a report from Consul Henry B. Hitchcock, Nagasaki, Japan, to the Department of Commerce. This is the first time that this commodity has appeared in the returns of this consulate.

The creosote oil is manufactured in a dyes and chemicals plant at Miike, Japan. The production at present amounts to about 4,000 metric tons a year, over and above the amount produced and used in the plant itself. Exports to the United States during the past six months, accordingly, represent nearly half of the available surplus and indicate that the United States is the chief purchaser of the output.

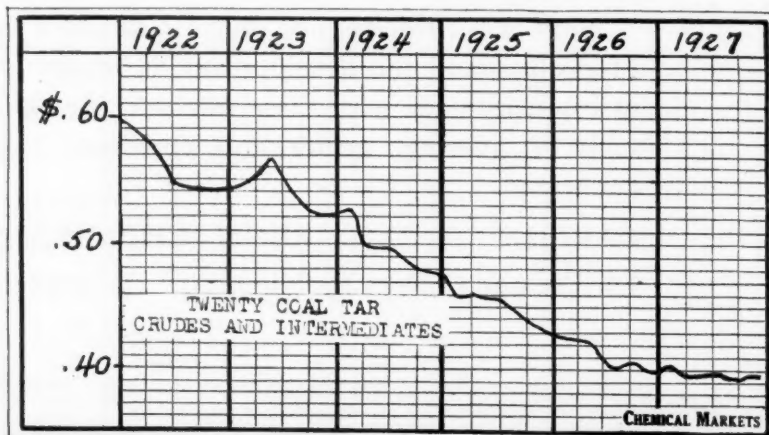
OCTOBER BENZOL IMPORTS

(Special to CHEMICAL MARKETS)

Washington, D. C., Dec. 21—There were 1,995,094 gallons of benzol, valued at \$440,354 exported from the United States during the month of October. During that same month 9,087 barrels of crude coal tar and coal tar pitch valued at \$30,523 and 619,845 pounds of "other crude distillates" valued at \$19,115 were also exported.

A new chemical laboratory has been promised to Amherst College by Mrs. W. H. Moore, New York, as a memorial to the late William H. Moore, '71, Chicago lawyer and financier.

Net profits of Industrial Rayon Corp. and subsidiaries for November, 1927, amount to \$90,319.02, after providing for depreciation, interest and estimated Federal taxes.




Reg. U.S. Pat. Off.

ANILINE
and
NITROBENZENE
(Oil of Mirbane)

Skill acquired by the production of many millions of pounds of ANILINE and NITROBENZENE in the past decade is responsible for strict product—uniformity.

Diligent research by du Pont Chemical Engineers during that time has yielded such important improvements in quality as to establish new standards of PURITY.

When you purchase DU PONT ANILINE and NITROBENZENE you obtain chemicals of unsurpassed purity that does not vary from one shipment to the next. You have this assurance whether you buy in drums or in tank cars. May we submit samples for comparison?

E. I. du Pont de Nemours & Co., Inc.
Dyestuffs Department, Sales Division

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Philadelphia, Pa.
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8 Thomas St.

Providence, R. I.
709 Hospital Trust Bldg.

San Francisco, Cal.
569 Mission Street

[Oils and Fats]

Cottonseed Oil Makes Strong Recovery

No Declines Reported This Week As Market Shows Strong Upward Tendency—Rumored That All Tallow Sales Are Not Being Reported—Chinawood Oil Stronger at Advanced Prices—Coconut Oil Business Improved—Cod Oil More Active.

Advanced						
Chinawood Oil, $\frac{3}{4}$ c lb				Cottonseed Oil $\frac{1}{2}$ c lb		
Coconut, Oil $\frac{3}{4}$ c to $\frac{1}{4}$ c lb				Greases $\frac{3}{4}$ c lb		
Corn Oil $\frac{3}{4}$ c lb				Tallow $\frac{3}{4}$ c lb		
Declined						
No declines						
Trend of the Market						
	Today	Two Weeks Ago	Last Month	Last Year	War Peak	Pre-War
Lard No. 1 .....	.85%	.85%	.86%	.73 $\frac{1}{2}$	2.90	.92
Neatsfoot 20 deg. et. ....gal.	1.29 $\frac{1}{2}$	1.29 $\frac{1}{2}$	1.33 $\frac{1}{2}$	1.10 $\frac{1}{2}$	8.45	.95
Stearic Acid T. P. ....lb.	.13 $\frac{1}{2}$	.13 $\frac{1}{2}$	.13 $\frac{1}{2}$	.15 $\frac{1}{2}$	.38	.12
Coconut Ceylon tanks ....lb.	.08%	.08%	.08%	.06%	.40	.14
Cottonseed, crude tanks ....lb.	.08%	.09	.09	.06%	.25	.08
Linseed crude c-l bbls ....gal.	.72	.67 $\frac{1}{2}$	.73 $\frac{1}{2}$	.81%	1.85	.57
Olive, denatured ....gal.	1.35	1.40	1.50	1.38	4.60	1.05
Peanut refined ....lb.	.15	.15	.15	.14%	.30	.08
Soya Beans bbls ....lb.	.12 $\frac{1}{2}$	.12 $\frac{1}{2}$	.12 $\frac{1}{2}$	.12	.19 $\frac{1}{4}$	.07
Average	4.808	4.81	0.557	0.512	5.92	1.50

Current Quotations and Comments on Specific Items, Page 918

All members of this group seem to be biding their time until after the turn of the year. Nevertheless, the past week has witnessed the beginning of an upward movement. No declines are reported, while members of both the vegetable and animal groups have advanced in price. Opinion seems unanimous in declaring this the beginning of a strong upward market which will carry over into the early months of next year.

The tallow market is still the center of considerable discussion. Extra has advanced in price during the past week but it is still said that it is almost impossible to buy at quoted figures, purchasers of any quantity being forced to pay from $\frac{3}{4}$ c@ $\frac{1}{4}$ c lb. above the market price. In addition, it is rumored that all sales are not being reported. Meanwhile palm oil continues unchanged in price with increased interest being shown.

Chinawood oil is recovering from the sharp decline of last week and is showing a stronger tone. Prices have already advanced and considerable interest is being shown, especially in future deliveries.

Cottonseed oil has also made extremely strong recovery since last reported and the market on last Saturday was steady at the advanced prices. Following this advance and due also to the fact that a scarcity is beginning to be felt, corn oil has also advanced in price in a firm market.

Business in coconut oil has im-

proved even in the face of somewhat higher prices. Higher prices are also reported on greases which continue firm as do the other members of the animal group. Business in Newfoundland cod oil is improved although there have been no further advances in prices.

Dr. C. M. A. Stine, chemical director, E. I. du Pont de Nemours & Co., was the speaker at a meeting of the Paint and Varnish Superintendent's Club of the Philadelphia district last week. The meeting, preceded by a dinner, was presided over by J. E. Fauser, president of the club.

Edward C. Haines, formerly with E. I. Du Pont de Nemours & Co., is now connected with George D. Wetherill & Co.

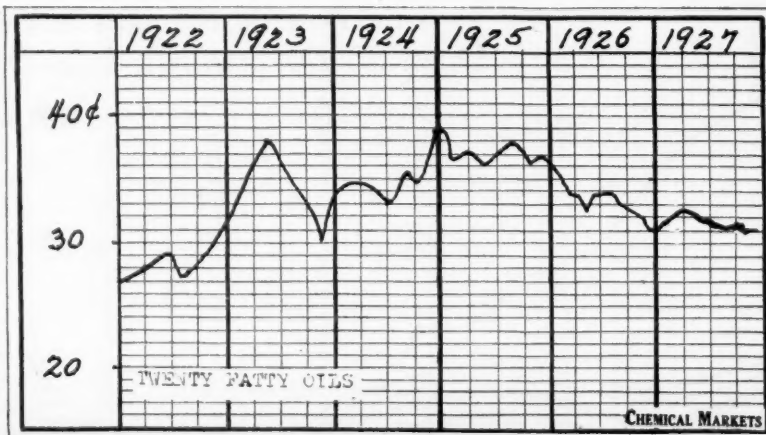
STEARIC ACID RULING

"Stearic acid" composed of palm oil, cocoa butter, mutton tallow, bone and hog fat having a low melting point and a high iodine value, and which does not crystallize in needle points, is not stearic acid of commerce and is dutiable as "all other acids" — not specially provided for" under paragraph 1 of the 1922 tariff act, at the rate of 25 per cent ad valorem. This ruling has just been handed down by U. S. Customs Court in the case of Lamont, Corliss Co., who had claimed duty at only $\frac{1}{4}$ c per pound.

The demand for sulfuric acid in the Baltimore district is quite active, with the requirements exceeding production, in certain instances, so that some of the users of acid are who are also producers, are placing business with other acid plants. The current quotations are declared to be firm at \$10.50 per ton for 60% brimstone acid and with 66% degree stocks at \$16. These prices, according to report, have been agreed upon at a meeting of the manufacturers held in Philadelphia recently, with some large orders expected on the market next spring, pointing to a considerable shortage.

An order has been issued in circuit court here restraining a former employee of William Waltke and Co. recently absorbed by Procter and Gamble, from selling a secret process for making laundry soap to a rival concern. It is alleged the employee threatened to sell the process to a rival concern for \$150,000 unless paid \$75,000 by Procter.

The Navy Department received bids on December 20 for 250 tons of sulfur for delivery at the Indian Head, Md., powder factory.



Solvents

Butanol [Normal butyl alcohol]

Used in all good lacquers.

Excellent solvent for gums, oils and resins.

Basic material for many valuable organic compounds.

Dibutyl Phthalate

The plasticizer for lacquers.

Butalyde

[Normal butyl aldehyde]

Anti-oxidant.

Increases the life of rubber.

Accelerates vulcanization.

Acetone, C. P.

Universal solvent (no residual odor).

Base for synthetic resins.

Diacetone-Alcohol

High-boiling solvent in brush lacquers.

Denatured Alcohol

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Plants—Terre Haute, Ind., and Peoria, Ill.



[Agricultural Chemicals]

Fertilizer Chemicals Retain Quiet Position

Consumers Display Dull Attitude—Sellers Of Foreign Tankage Reduce Price—Otherwise Prices Unchanged—Resellers of Ammonium Sulfate Hold Market Strongly—Sodium Nitrate Buying Poor—Winter Prices of Potash Salts Basically Unchanged But Discounts Abolished.

Advanced
No advances
Declined
South American Tankage 5c unit

	Trend of the Market					Pre-War
	Today	Two Weeks Ago	Last Month	Last Year	War Peak	
Acid Sulfuric 66° .....ton	\$15.00	\$15.00	\$15.00	\$15.00	\$55.00	\$20.00
Amm. Sulfate .....100 lbs.	2.35	2.35	2.35	2.50	1.75	2.65
Arsenic .....100lbs.	4.00	4.00	4.00	3.50	18.00	4.00
Copper Sulfate c-1 .....100 lbs.	5.00	5.00	5.00	4.75	20.00	4.00
Paris Green .....	.19	.19	.19	.19	.50	.11
Potash Muriate 80% .....ton	36.40	36.40	36.40	36.40	...	...
Potash Sulfate 90% .....ton	47.30	47.30	47.30	47.30	440.00	48.07
Phosphate Acid 16% .....ton	9.00	9.00	9.00	10.00	11.00	3.00
Phosphate Rock 68% .....ton	3.00	3.00	3.00	3.00	2.65	3.00
Sodium Nitrate .....100 lbs.	2.40	2.40	2.40	2.60	5.00	1.90
Average	12.464	12.464	12.464	12.524	10.350	13.84

Current Quotations and Comments on Specific Items, Page 914

The markets for the entire line of insecticidal and agricultural chemicals is totally devoid of consumer interest. The usual dullness witnessed between seasons and the pre-holiday atmosphere are both allied in creating this condition and the past week has been less active than for some time past. The only actual price change for the week was revealed in the asking quotations for South American tankage. Last week's quotations failed to produce any sizable amount of business and suppliers lowered their prices. Despite the shortage of materials, domestic sellers can still undersell foreign goods but the market is quiet at all points and no large sales have been made.

Resellers of ammonium sulfate maintained the quoted prices of last week and even higher prices are not unlikely as the large producers are said to be committed for their entire production. With the turn of the year, buyers who are not covered for their supply will probably manifest a good deal of interest and possibly force the re-sale market higher. Sodium nitrate is in an unchanged position, consumers are not evidencing any inclination to buy but sellers are equally firm in their inclination to maintain current prices. It is very speculative as to what the market will do after the passing of the holiday period, but further strength is indicated when the normal amount of interest is revived. Dried blood is practically dormant on spot, a very limited amount of sales have been made and

current prices represent offerings only. Cyanamide, bone meal, phosphates and nitrogeous material are all in a quiet position but prices are holding rigidly and without exception. Prices for insecticides for next year have not yet been announced but are expected momentarily. The German potash agency has released prices of potash salts effective until April 30th, 1928. Basic prices remain the same but the usual discounts granted, have been discontinued. Discounts will again probably be allowed on purchases applying on the Summer schedule.

Commercial Chemical Co., Philadelphia, has taken out a Delaware charter to engage in the chemical, paint and oil business. It has been authorized to have a capital stock of \$20,400.

AIRPLANES TO BE USED FOR WEEVIL DUSTING

Four aeroplanes owned by the Department of Agriculture, supplemented by private planes and other machines, will be used this season in the cotton belt to check the ravages of the boll weevil, Secretary Jardine announced.

Experimentation in killing off the weevil has been successful and new contrivances have been used to control the pests, the Secretary said.

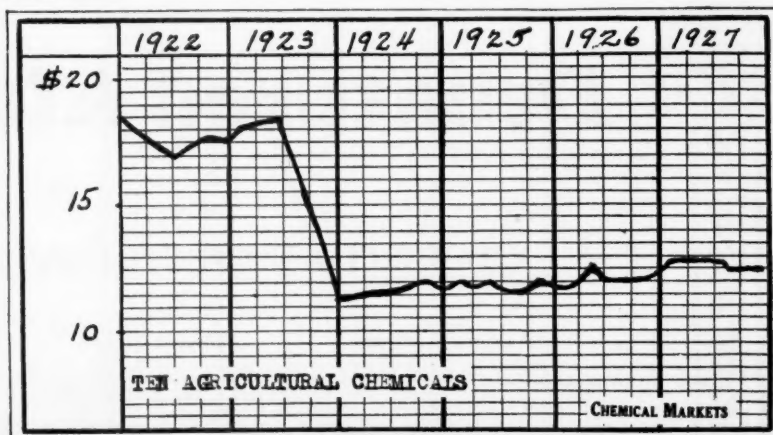
In a report released by the Department on Nov. 28 by L. O. Howard, chief of the Bureau of Entomology, concerning investigations and control of cotton insects by B. R. Coad, the statement is made:

"After some further refinements, a daylight dusting machine will be available which can be used with a wind velocity of probably not over 10 miles per hour. Sufficient progress has now been made in the equipment for delivering dust so that this can be made to adhere to the plants when dry."

William P. Ward, Farmers and Planters Co., Salisbury, Md., was elected president of the Delmarva Peninsula Fertilizer Dealers' Association at its annual meeting in that city last week. Other officers elected were: Vice-president, I. W. Culver, Seaford, Del.; secretary, D. B. Ford, Chestertown; treasurer, W. W. Price, Smyrna, Del.

A. C. Schoenewaldt, recently of George Uhe, Inc., is now doing business as a broker in chemicals, solvents, and essential oils, with an office at room 600, Temple Bar Annex, 186 Remsen st., Brooklyn.

J. Roy Pinkham and O. L. Gaither, manufacturers of fertilizers, will open a plant at Exeter, Cal., to serve the citrus district of Central California.





New York Harbor Plant of American Cyanamid Co.
Where Aero Brand Ammonia is Made

AMMONIA

An Essential Chemical

Today, Ammonia is one of the world's most essential chemicals—having important applications in practically every industry.

The Air Nitrogen Industry has made possible the manufacture and distribution of this important chemical on a more efficient basis than ever known before, with far reaching effect in the wider use of ammonia and its compounds.

American Cyanamid Company, pioneer producers of air-nitrogen products in America, manufacture and distribute both Anhydrous and Aqua Ammonia of the highest quality for those requiring a uniform high grade product, consistent in its performance.

AERO BRAND AMMONIA

Anhydrous Ammonia

Exceptionally pure, dry and uniform, conforming to rigid specifications as to quality. Shipped in regulation cylinders in 50, 100 and 150 lb. sizes.

Aqua Ammonia

Water white, of high degree of purity and of course, absolutely free from coal tar impurities. Standard 26° Baume (29.4% actual ammonia) and other desirable concentrations, shipped in tank cars or drums.

Dependable service—prompt shipment in any desired quantity to all consuming areas by rail, water or truck from our New York harbor plant.

Industrial Chemicals Supplied by American Cyanamid Company

Ammonia	Diorthotolylguanidine
Anhydrous	Diphenylguanidine
Aqua	Formic Acid
Ammonium Chloride	Hydrocyanic Acid, Liquid
Carbonate of Potash	Lead Acetate
Case Hardening Compounds	Red Prussiate of Potash
Caustic Soda	Soda Ash
Copper Sulphate	Sodium Sulphide
Cyanide, Aero Brand	Sulphocyanides
Cyanide, Copper	(Thiocyanates)
Cyanide, Potassium	Thiourea
Cyanide, Silver	Urea
Cyanide, Sodium	Yellow Prussiate of Potash
Cyanide, Zinc	Yellow Prussiate of Soda
Dicyandiamid	Zinc Dust

We shall be pleased to receive inquiries regarding Aero Brand Ammonia, or any other products included in the complete line of Industrial Chemicals offered by this organization.

Kindly address the Industrial Chemicals Division
American Cyanamid Company,
Pioneer Producers of Air Nitrogen
Products in America

535 Fifth Avenue : New York, N. Y.

[Industrial Raw Materials]

Shellac Prices Easier: Tanning Extracts Quiet

Increased Spot Supply of Shellac Causes Decline—Fair Sized Supplies In Transit May Cause Further Reductions—Varnish Gums Lifeless—Tanning Materials Difficult to Obtain—Wattle Bark Reaches \$72.00 Ton.

Advanced		Declined	
Rosin B	5c 280 lbs	Rosin N	10c 280 lbs
Rosin H	25c 280 lbs	Shellac all grades	1c lb
Rosin I	22½c 280 lbs		
Rosin K	15c 280 lbs		

Current Quotations and Comments on Specific Items, Page 914

An absence of any sizable buying interest continues among the industrial raw materials group. The holiday period and the inclination of buyers to refrain from purchasing prior to taking inventory has caused a dull month for suppliers but one comparatively favorable to those of previous years. Tanning extracts are chiefly affected and spot business is at a standstill. Offsetting this, prices are extremely firm and supplies of the crude products are difficult to obtain. Valonias and divi-divi are nominally priced and no shipments have emanated from the primary markets for some time. Latest sales were made at high prices and when present situation is relieved, price quotations are likely to create new high records. Wattle bark is in somewhat easier supply, but its price is unchanged and the recent arrivals are to fulfill orders received last June. A price decline will doubtlessly result if the supply continues uninterruptedly and the crop is of normal size. Waxes are not in very heavy demand, in fact, orders are for less than case lots and will probably continue so until after the holidays.

Varnish gums are without any particular life and prices seem to be holding steadily. Shellac prices are somewhat lower as a result of an increasing spot supply. Fair sized quantities are reported to be in transit and easier prices are forecast during the next few weeks. The London and Calcutta markets are easier and also indicate a softer domestic market. There seems to be no particular activity in starches and dextrins, all grades are moving below normal excepting the corn variety which are holding somewhat above normal. Albumens are all quiet but firm in price, reflecting in underlying conditions in the primary market.

(Special to CHEMICAL MARKETS)

Savannah, Ga., Dec. 19th—The turpentine market closed in a weak position to-day with sales made at 51½c gal. Early in the week, prices fell off sharply and offerings were liberal at 46c@46½c gal. The substantial advance of the previous week was evidently too large to be held. Since this decline, business has been transacted on a better basis, underlying conditions have strengthened and the daily deals have regained all but 1c gal. of the decline. Regarding the coming week, it is not believed that prices will advance further than their current level of 51½c gal. as there was a decisive lack of buying interest. Most of those concerned believe that the market is inclined towards descending during the first few days of the week. Fluctuations will probably be frequent during the next few months as receipts will be small and higher prices encouraged. Receipts, 3,332 barrels, sales, 1,825 barrels (2,000 barrels additional), shipments, 8,375 barrels and stock 24,483 barrels.

The rosin market closed in a slightly lower position than last week after all grades declined early in the week and reached bottom on Wednesday. The market possessed an upward tendency thereafter and regained most of the decline but lingered at the same prices as the market closed. Further advances are not likely until after the turn of the year when it is thought that mediums and commons will be firmly established at \$8.00 and fine grades at \$11.00. The receipts of rosin amounted to 13,564 barrels, sales reported of 7,177 barrels (An equal amount probably sold but not reported). Shipments were 35,345 barrels and present stock is 116,884 barrels. Current prices are: B,D,

E,F, \$7.25; G, \$7.30; H, \$7.35; I, \$7.40; K, \$7.50; M, \$7.60; N, \$8.50; WG, \$9.50; WW,X, \$10.50.

Jacksonville, Fla. — Turpentine weaker at 49¾c gal. Rosin prices X,WW \$10.50; WG \$9.50; N \$8.50; M \$7.60; K \$7.50; I, \$7.40; H \$7.35; G \$7.50; F,E,D,B, \$7.25. Stocks turpentine 34,169 barrels and rosin 108,277 barrels.

FELDSPAR DUTY ASKED

(Special to CHEMICAL MARKETS)

Washington, D. C., Dec. 21—A bill has been introduced in the House by Representative Williamson, South Dakota "to levy an import duty on crude feldspar." The bill, which has been referred to the House Committee on Ways and Means follows:

"That on and after the day following the passage of this Act there shall be levied and collected and paid upon crude feldspar, where imported from any foreign country into the United States or into any of its possessions, a duty of \$3 per ton."

Sealed proposals, in duplicate, will be received at the office of the Marine Corps. Quartermaster's Department, Washington, D. C., until 11 a. m. December 28 for furnishing 350 tons (more or less) of mineral salt, for delivery f. o. b. producer's plant. Proposal blanks and other information may be obtained upon application. This office reserves the right to reject any or all bids or parts thereof and to waive informalities therein. Bids from regular dealers only will be considered.

Public hearing of applications of Phillips Petroleum Co. and Cosmos Co. for construction of carbon black plants in Panhandle oil field will be before Railroad Commission on December 20, at Austin, Tex. Phillips seeks permission to construct two large plants, one to use residue natural gas from wells in Hutchison and Carson counties and the other to use waste gas in Gray County. Cosmos Co. asks permission to construct a plant within city limits of Borger.

During the third quarter of 1927, imports of iron pyrites into Germany exceeded 295,000 metric tons, which compares with 218,400 metric tons in the preceeding quarter and 202,600 metric tons in the corresponding quarter of 1926.

Calumet Baking Powder Co.'s hearing before Federal Trade Commission on alleged unfair competitive practices was held last week in New York.



Industrial Alcohols
and
Alcohol Chemicals

U. S. INDUSTRIAL ALCOHOL CO.
U. S. INDUSTRIAL CHEMICAL CO., Inc.

Executive Offices: 110 East 42nd Street, New York, N. Y.—Branches in all principal cities

Sole Manufacturers of
PYRO—THE STANDARD ANTI-FREEZE

Prices Current

Heavy Chemicals, Coal-tar Products, Dye-and-tan-stuffs, Colors and Pigments, Fillers and Sizes, Fertilizer and Insecticide Materials, Naval Stores, Fatty Oils, etc.

Chemical prices quoted herein are those of American manufacturers for goods, spot New York, f. o. b., or ex-store, for immediate shipment, unless otherwise specified. Industrial chemical products sold principally on a basis of f. o. b. works are specified as such. Quotations on imported chemicals are so designated. Resale stocks sufficient to be a factor in the market, are quoted in addition to makers' prices and are indicated as "second hands."

Oils and fats are quoted spot New York, or ex-dock.

Quotations on products sold f. o. b. mills, or spot Pacific Coast are so designated.

Industrial raw materials are quoted spot New York, f. o. b., or ex-dock. Materials sold f. o. b. works or delivered at various sections of the country are so designated.

The range of prices given is not "bid and asked," but indicates quotations from different sellers, based on varying grades or quantities or both. Containers named are the original packages most commonly used in the New York market.

Acetaldehyde Alcohol Ethyl

Acetaldehyde drs. 1c-1 wks	..24	..26
ACETANILID, tech 150lb bbls	..20	..21
Acetone Anhydride		
92-95% 100lb cys	..29	..35
Acetone, CP, 700lb drs c-1 wks	..12	..12
Acetone Oil drs N.Y.	1.65	1.75
Acetyl Chloride, 100lb cys	..42	..45
ACID, Acetic, 28% 400lb bbls c-1		
wks	..3.38	..3.38
Glacial bbls c-1 wks 100lb	..11.92	..11.92
Benzole, tech., 100lb bbls	..57	..60
Boric crys., powd., 250lb bbls	..08½	..11
Carbolic 10% 50 gal bbls	..25	..28
Chlorosulfonic, 1,500 lb bbls	..15	..16
Chromotropic 300 lb bbls	1.00	1.06
Citric, USP, cryst 230 lb bbls	..44	..55
Cleat's 250lb bbls	..95	..97
Cresylic, 95% dark drs NY gal	..65	..67
97-99% pale NY gal	..70	..72
Formic, 85% tech., 140 cys	..11	..12
Gamma, 225lb bbls wks	1.00	1.06
H 225 lb bbls wks	..57	..63
Hydrobromic, 48% com'l 155 lb		
cys wks	..45	..48
Hydrocyanic wks cyl	..80	..90
HYDROFLUORIC, 30% 400 lb		
bbls wks	..06	..06
Hydrofluosilicic, 35% 450 lb bbls		
wks	..11	..11
LACTIC, 22% dark 500 lb bbls	..05½	..06
44% light bbls	..13	..13½
Laurent's 250lb bbls	..52	..54
Metanilic 250 lb bbls	..60	..65
Mixed, Sulfuric nitric		
Drums, wks	..07½	..08
Drums, wks	..01	..01½
Monosulfuric F Delta 50 lb tins	..65	..65
MURIATIC, 20° cys wks 100lb	1.70	1.80
18° 120lb cys c-1 wks 100lb	..1.35	..1.35
Naphthionic tech., 250lb bbls	..55	..59
N & W 250 lb bbls	..95	..99
NITRIC 36° 135lb		
Cys c-1 wks	..5.00	..5.00
40° cys c-1 wks	..6.00	..6.00
Oxalic, 300lb bbls wks NY lb	..11	..11½
Phosphoric, 50% 150lb cys	..08	..08½
Syrupy USP, 70 lb drums &	..16	..16
Picramic, 300lb bbls	..50	..50
Pyrogallic tech., 200lb bbls	..86	..86
Sallelic tech., 125lb bbls	..27	..32
Sulfanilic, 250lb bbls	..15	..16
SULFURIC, 66° 180lb cys		
1c-1 wks	1.60	1.95
1,500lb drums wks 100lb	..1.20	..1.20
60° 1,500lb drums wks 100lb	..1.10	..1.10
Oleum 20 pc 1500lb drums		
1c-1 wks	..1.50	..1.50
Oleum 40% drs 1c-1 wks net ton	..42.00	..42.00
Tannic, tech., 300lb bbls	..80	..40
Tartaric, USP, cryst powd 300lb		
bbls	..34½	..35
Tobias, 250lb bbls	..85	..85
ALCOHOL, Butyl Normal 50 gal drs		
wks c-1	..20	..20
Drums 1c-1 wks	..19½	..19½
Tank cars wks	..19	..19
Diacetone, 50 gal drs del	1.70	1.90
Ethyl USP 90 pf 50 gal bbls gal	..3.70	..3.70
Anhydrous, drums	..50	..55
Ethyl, Denatured		
No. 1 Complete denat 190pf		
50 gal drums extra gal	..52	..52
No. 5 Complete denat 188pf		
50 gal drums extra gal	..50	..50
Tank cars	..46	..46

Chemicals

Acid Cresylic — Quotations are very firm at 65c@67c gal. for dark and 70c@72c gal. for pale. Replacements are entering in better volume than earlier in the Fall but are not heavy enough to induce any shading of price values.

Acid Formic — There has been no change in price or position over the week, and the market is quiet at quoted levels.

Acid Gamma — Business is rather slow at this time, contract business for next year is promising and prices are firm at \$1.00@\$1.06.

Acid Oxalic — Producers are still doing a capacity business and are having no trouble in getting 11c lb. for domestic material. The demand is still somewhat in excess of available supplies.

Acid Tartaric — The market is quiet and easy at 34½c@35c lb. as to quantity and seller for imported material. No change in the situation is looked for until after the turn of the year.

Alcohol — There are reports of pressure to sell in some quarters before the advent of the allotment of production by the Government with a consequent easier tone to the market. This condition is only temporary and the market is basically strong at the schedule level.

Ammonia, Anhydrous — Makers are continuing to experience a very brisk demand for next years requirements and the market is very stiff at 13½c@14c lb. as to quantity. Aqua is in much the same position with heavy sales recorded for next year.

Ammonium Chloride — Domestic manufacturers officially lowered their carlot price to \$4.85 100 lbs. late last week. No reason was given for the move but an easy market and imported competition for what business there is undoubtedly

Alcohol Isopropyl Butyl Tartrate

ALCOHOL		
Isopropyl, refined gal drs	1.00	1.25
Propyl nml, 50gal drums	..1.00	..1.00
Aldehyde Ammonia, 100 gals drs	..90	..82
Alpha-Naphthol crude 300lb bbls	..65	..65
Alpha-Naphthylamine, 350lb bbls	..35	..37
ALUM, Ammonia, lump, 400lb bbls		
wks 1c-1	3.25	3.30
Chrome, 500lb cks, wks	5.25	5.50
Potash, lump, 400lb wks 100lb	3.10	3.20
Chrome, 500lb casks wks 100lb	5.25	5.50
Soda Grd., 400lb bbls wks 100lb	..3.75	..3.75
Aluminum metal, c-1 NY	1.00	26.00
Chloride, anhyd 275lb drs	..35	..40
Hydrate 96% light 90lb bbls	..17	..18
Stearate, 100lb bbls	..23	..24
SULFATE, Iron-free bags c-1		
wks	..1.75	..1.75
Com'l bags c-1 wks 100lb	..1.40	..1.40
Aminoazobenzene, 110lb kegs	..1.15	..1.15
AMMONIA, anhyd, 100lb	..11	..12½
Water, 26° 800lb drs del	..03	..03
Bifluoride, 300 bbls	..21	..22
Carb. tech., 500lb cases	..08½	..09
Chloride White bbls wks 100 lb	4.85	5.15
Gray, 250 bbls wks	..05½	..05½
Lump, 500lb casks spot	..11	..11½
Lactate, 500lb bbls	..15	..16
Persulfate, 112 kegs	..27½	..30
Phosphate Tech., powd 325lb		
bbls	..18	..18
Sulfate, bulk c-1	2.35	2.40
Southern points	..2.35	..2.35
Amyl-Acetate, tech., 50 gals drs	1.90	2.00
Alcohol, see Fusel Oil		
ANILINE OIL, 960 lb drums	..15½	..16½
Anthraquinon, sub 125lb bbls	..90	1.00
Antimony metal slabs tons lots	..11½	..11½
Needle powd 100 lb cs	..15½	..16
Oxide, 500 bbls	..16½	..17
Arsenic Red, 224 kegs cases	..10½	..11
White 112 lb kegs	..04	..04
BARIUM Carbonate 200lb bbls wks 100lb	47.00	50.00
Chlorate, 112lb kegs NY	..12	..12½
Chloride, 800lb bbl wks	55.50	58.00
Dioxide, 88% 690lb drs	..13	..13½
Hydrate, 500lb bbls	..04½	..04½
Nitrate, 700lb cks	..07½	..08
Barytes, floated 350lb bbls		
wks	23.00	24.00
Benzaldehyde tech. 945lb drs wks	..65	..70
BENZENE		
Comm. 90% 8,000 gal tkwsgal	..21	..23
Commercially pure tks wks gal.	..21	..23
Benzidine Base, dry 250lb bbls	..70	..74
Benzoyl Chloride 500 drs	..1.00	..1.00
BETA-NAPHTHOL 250 bbls wks	..24	..24
Beta-Naphthylamine tech 200lb		
bbls	..63	..65
Sublimed, 200lb bbls	..1.35	..1.35
Blanc Fixe, 400lb bbls wks ton	80.00	90.00
BLEACHING POWDER, 700lb drs		
c-1 wks contract 100lb	..2.00	..2.00
300lb drs c-1 wks contract 100lb	..2.25	..2.25
Blues, bronze Chinese, Millor		
Prussian Soluble	..28	..30
Bone Ash, 100lb kegs	..06	..07
Black, 200lb bbls	..03½	..03½
Borax, crys., 500lb bbls	..04½	..05
Bordeaux Mixture, 16% pd.	..11	..12
Paste, bbls	..08	..10
Butyl Acetate normal tk drs wks gal	..1.55	..1.55
Drums 1c-1 wks	..1.60	..1.60
Secondary 50gal drums	1.00	1.05
Aldehyde 50 gal drs wks	..70	..70
Propionate drs	..34	..36

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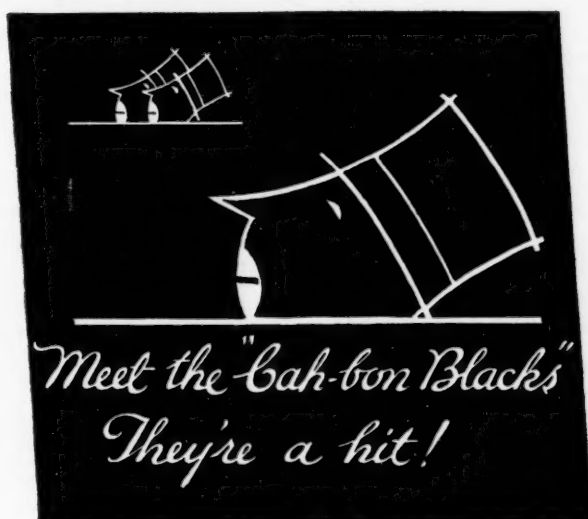
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Quality? None better. Uniformity? A special characteristic. Free from grit? Absolutely. Put these Carbon Blacks to work to make a good product even better.

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DINITROPHENOL

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Soda Hyposulphite

Highest Purity
Prompt Delivery
Attractive Prices

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644-652 Greenwich St. - New York

Calcium Acetate Ferrous Chloride

Stearate 50gal drs.	100B60
Tartrate drs.	100B	...	.57 : .69
CALCIUM Acetate 150B bgs c-l	100B	...	2.50
Arsenate, 100B bbls c-l wks	100B	...	.07 1/4 : .08
Carbonate, tech 100B bags c-l	100B	1.00	1.10
CALCIUM Chloride solid 650B drs	21.00	23.00	
c-l f.e.b. wks ....	...	21.00	
Flake, 375B drs c-l wks ton	...	52.00	
Nitrate, 220B bbls c-l NY ton	...	.09	.10
CALCIUM, Phos., tech 450B bbls	...	.62	
CAMPOR, Amer ref. 250B bbls	...	.60	.63
Jap., ref slabs 100B cs	...	.05 1/4	.08
Carbon Bisulfide 500B dr le-1 NY	...	...	.12
Carbon Black 100-300B cs	...	...	.15
Decolorizing 40B bags c-l	...	...	.07
Carbon Dioxide, Liquid 20-25cy	...	...	.17 1/4
Tetrachloride, 1400B drs del	...	...	1.40
Casein, Standard ground	...	...	.03
Cellulose Acetate, 50B kegs	...	...	.04 1/2
Chalk, drop 175B bbls	...	...	.02 1/4
Precip., light 350B bbls cks	...	...	...
Precip., heavy 560B cks	...	...	...
CHLORINE, Liquid tank or multi-	...	...	...
unit cer, contract wks	...	...	...
Carlots cyl wks contract	...	...	...
le-1 cyl wks contract	...	...	...
Chlorobenzene, mono, 100B drs	...	...	...
wks le-1	...	...	...
CHLOROFORM, Technical 1,000B	...	...	...
drums	...	...	...
Chromium Acetate 20° sol'n 400B	...	...	...
bbls	...	...	...
Fluoride, Powd., 400B bbls	...	...	...
Oxide, Green bbls	...	...	...
Chrome Green, CP	...	...	...
Comm.	...	...	...
Chrome Yellow	...	...	...
Clay c-l Bulk, Del.	...	...	...
COPPER, metal electrolyte 100B	...	...	...
Carbonate 400B bbls	...	...	...
Chloride 250B bbls	...	...	...
Cyanide 100B drs	...	...	...
Oxide, red 100B bbls tons	...	...	...
Sub-acetate verd 440B bbls	...	...	...
SULFATE, Carlots, bbls wks 100B	...	...	...
Coppers bulk, crystal and sugar	...	...	...
c-l wks	...	...	...
Sugar, 100B bbls	...	...	...
Cotton Soluble 100B wt.	...	...	...
CREAM TARTAR, USP, 800B	...	...	...
bbls	...	...	...
Creosote USP 42B chgs	...	...	...
Creosote Oil Natural 50gal drs	...	...	...
10-15% Tar Acid	...	...	...
25-30% Tar Acid	...	...	...
DIAMINOPHENOL, 100B kegs	...	...	...
Diamyl Phthalate drums, wks	...	...	...
Dianiline, 100B kegs	...	...	...
Dibutyl Phthalate wks	...	...	...
Dibutyl Tartrate, 50gal drums	...	...	...
Dichloromethane drums, wks	...	...	...
Diethylamine, 400B drs	...	...	...
Diethylamine, 850B drs	...	...	...
Diethyl Carbonate 90% drums gal	...	...	...
Diethyl Phthalate 1,000 drums	...	...	...
Diethyl Sulfate tech., 50 gal drs	...	...	...
Dimethylamine, 400B drs	...	...	...
Dimethylaniline 340B drs. wks	...	...	...
Dimethylsulfate, 100B drs	...	...	...
Dinitrobenzene, 400B bbls	...	...	...
Dinitrochlorobenzene, 400B bbls	...	...	...
Dinitrochlorine, 300B bbls	...	...	...
Dinitronaphthalene, 350B bbls	...	...	...
Dinitrophenol, 350B bbls	...	...	...
Dinitrotoluene, 300B bbls	...	...	...
Diocthotolylguanidine, 275B	...	...	...
bbls wks	...	...	...
Diphenylamine	...	...	...
Diphenylguanidine 100B bbls	...	...	...
EPSON SALT, tech., 300B bbls	...	...	...
c-l NY	...	...	...
Ethyl Acetate, 99% 50gal drs gal	...	...	...
85% Ester 110 gal drs	...	...	...
110 gal drs	...	...	...
Benzyl Aniline, 300B drs	...	...	...
Chloride, 200B drs	...	...	...
Lactate drums wks	...	...	...
Methyl Ketone, 50gal drs	...	...	...
Oxalate drums wks	...	...	...
Ethylene-Bromide 600B drs	...	...	...
Chlorhydrin, anhyd., 50gal drs	...	...	...
Dichloride, 50gal drs	...	...	...
Glycol 50gal drums wks	...	...	...
Ethyl Ether drs., c-l gal	...	...	...
Ethylidenaniline	...	...	...
Feldspar bulk	...	...	...
FERRIC CHLORIDE tech., crys.	...	...	...
475B bbls	...	...	...
Ferrous Chloride crys tech 475B	...	...	...
bbls	...	...	...

Chemicals

forced the move. Imported is easily procurable at these levels and might be shaded to \$4.80 100 lbs. New York.

Aniline Oil — A few tank car sales featured the market for the week and prices continue to be rigidly firm at 15 1/4c@16 1/4c lb.

Barium Chloride — Domestic manufacturers are busy with next years commitments and are taking the major share of the business at somewhat under the quoted domestic spot level. Importers continue to quote \$55.50@57.00 ton for prompt shipment.

Beta-Naphthol — Somewhat silent now but expected to move in good sized volume after the turn of the year. Prices are held at 24c lb. and the lowest price obtainable is 22c lb. for bulk quantities.

Bleaching Powder — Moving well for 1928 contracts with no change as to position or price.

Copper Sulfate — Demand is quite brisk and in this respect sales are exceeding those of last December. Producers here are reluctant to take on orders for more than sixty days ahead and business on this basis is being done at \$5.00 100 lbs. in all sections. In spite of consumers desire to contract for the Spring season, little has been closed on this position yet.

Dianisidine — This market has precipitated to \$2.80 lb. At present is firm and the lowest procurable quotation is \$2.70 lb. for contract quantities. Increased production and cheaper costs are responsible for this change.

Diphenylamine — Is proceeding in a routine manner with good contract deliveries and an average amount of spot business at full prices of 45c lb. for barrels. Contracts for next year are being entered readily at 42c lb.

Glycerin — Business in dynamite was very dull over the past week with few if any sales to establish a market, and it is openly quoted at 16c lb. but this price is subject to shading. Saponification has been sold recently at 10 3/4c lb.; lye is quiet and practically nominal at 9 3/4c@10c lb. and C.P. is held at 20c lb. in bulk.

Mercury — The good demand on the past ten days continues to some extent and the market is in a good position at \$127.50@128.00 flask as to position and seller. Basically the market continues to reflect the strong position of that abroad.

Fluorspar Para-Aminophenol

Fluorspar, 95% 220B bags ex-	...	...	...
dock	...	...	...
FORMALDEHYDE USP, bbls 400B	...	...	...
le-1 wks	...	...	...
Formaldehyde Aniline 100B drs	...	...	...
Furfural 500B drums	...	...	...
Fusel Oil 10% Impurities drs gal	...	...	...
G SALT paste 360B bbls	...	...	...
GLAUBER'S SALT, tech., 200B bgs	...	...	...
c-l wks	...	...	...
GLYCERIN, CP, 550 lb drums	...	...	...
Dynamite, 100 dr	...	...	...
Saponification tanks	...	...	...
Soap, Lye tanks	...	...	...
Hexalene, 50gal drs, wks	...	...	...
Hexamethylenetetramine drs	...	...	...
HYDROGEN PEROXIDE,	...	...	...
100vol 140B chgs	...	...	...
IRON Chloride see Ferric or Ferrous	...	...	...
Nitrate, kegs	...	...	...
Com'l bbls	...	...	...
Oxide, red Spanish	...	...	...
English	...	...	...
Isopropyl Acetate 50gal drums gal	...	...	...
LEAD, Metal c-l NY	...	...	...
Acetate, white crystals	...	...	...
bbls wks	...	...	...
Arsenate, bbls, le-1 wks	...	...	...
Nitrate, 500B bbls wks	...	...	...
Oxide, Litharge 500B bbls	...	...	...
Oxide, red 500B wks	...	...	...
Oleate, bbls	...	...	...
White, 500B bbls wks	...	...	...
White sulfate 500B bbls wks	...	...	...
LIME, (Salts, see Calcium Salts)	...	...	...
Ground Stone, bags	...	...	...
Live, 325B bbls tons wks	...	...	...
Lithopone, 400B bbls le-1 wks	...	...	...
MAGNESITE, calcined, 500bbls ton	...	...	...
Magnesium Carb., tech., 70B bags	...	...	...
NY	...	...	...
MAGNESIUM, Chloride, flake 575B	...	...	...
drs c-l wks	...	...	...
Imp., Flake Shipt	...	...	...
Imp., fused 900B bbls NY ton	...	...	...
Fluonilicate crys 400B bbls wks	...	...	...
Oxide, USP, light 100B bbls	...	...	...
USP, heavy 250B bbls	...	...	...
Stearate bbls	...	...	...
Manganese Borate, 30% 200B	...	...	...
bbls	...	...	...
Chloride, 600B cks	...	...	...
Sulfate, 550B drums NY	...	...	...
MERCURY, metal 75 lb flask, flask 127.50	...	...	...
Meta-Nitro-aniline	...	...	...
Meta-Nitro-para Toluidine, 200B	...	...	...
bbls	...	...	...
Meta-Phenylenediamine, 300B	...	...	...
bbls	...	...	...
Meta-Toluylenediamine, 300B	...	...	...
bbls	...	...	...
METHANOL (Wood Alcohol) drs	...	...	...
95%	...	...	...
97% drums, le-1	...	...	...
Pure drums, le-1	...	...	...
Synthetic drums, le-1	...	...	...
U. S. denat. grd., tanks	...	...	...
Methyl Acetate drums	...	...	...
Methyl Acetone, 100 gal drums gal	...	...	...
Chloride, 90B cyl	...	...	...
Monethylaniline, 900B drs	...	...	...
Monomethyl paraminophenol sulfate	...	...	...
100B drs	...	...	...
NAPHTHALENE, flakes, 175 lb bbls	...	...	...
wks	...	...	...
Balls, 250 lb wks	...	...	...
Crushed, chipped bgs wks	...	...	...
NICKEL, Chloride, bbls kegs	...	...	...
Oxide, 100B kegs NY	...	...	...
Salt single 400B bbls NY	...	...	...
Double, 400B bbls NY	...	...	...
Nicotine, Free, 40% 8B tins cs	...	...	...
Nicotine Sulfate 10B tins	...	...	...
Nitro Cake 500B bbls	...	...	...
Nitrobenzene, Redistilled 1000B drs	...	...	...
wks	...	...	...
Nitronaphthalene, 550B bbls	...	...	...
Nitrotoluene, mixed 1,000B drs	...	...	...
wks	...	...	...
Orange-Mineral, 1100 lb cks NY	...	...	...
Ortho-Aminophenol, 50B kegs	...	...	...
Ortho-Anisidine, 100B drs	...	...	...
Ortho-Dichlorobenzene	...	...	...
Ortho-Nitrochlorobenzene, 1,200B	...	...	...
drs wks	...	...	...
Ortho-Nitrophenol, 350B	...	...	...
Ortho-Nitrotoluene, 1,000B drs	...	...	...
wks	...	...	...
Ortho Toluidine le-1 350B bbls	...	...	...
Para-Aminocetanilid, 100B bgs	...	...	...
Hydrochloride, 100B kegs	...	...	...
Para-Aminophenol, 100B kegs	...	...	...

Pure Phthalic Anhydride



Phthalic Anhydride of the highest purity has been produced by us in commercial quantities for over 9 years and this pure Phthalic Anhydride is well-known to the trade as SELDEN BRAND. Its form is the natural long needle crystal which dissolves and melts much more rapidly than in any other form.

We pack this material in new slack barrels containing 150-lb. net weight of Phthalic Anhydride and these packages are so constructed that their use for re-shipment is a well established fact among our customers.

Our service on Phthalic Anhydride is unexcelled and we are in position to make prompt shipment in carload lots.

Your inquiries will have our prompt attention and we will be pleased to furnish quotations and samples at your request.

THE SELDEN COMPANY
Pittsburgh, Pa., U. S. A.

**Para-Dichlorobenzene
Sodium Acetate**

Para Dichlorobenzene, 150D bbls
wks	.17	.20
Paraldehyde 110-55 gal drs	.26	.28
Para-Cymene Ref d. 110 gal drs gal	2.25	2.50
Para-Nitrocetanilid 300D bbls	.50	.55
PARA-NITROANILINE, 300D bbls		
wks anils bbls	.48	.49
Para-Nitrochlorobenzene, 1,200D drs	...	.32
wks	...	...
Para-Nitro-ortho Toluidine, 300D bbls	2.75	2.85
Para-Nitrophenol, 185D bbls	.50	.55
Para-Nitrosodimethylaniline, 120D bbls	.92	.94
Para-Nitro Toluene, 350D bbls	...	.30
Para-Phenylenediamine 350D bbls	1.15	1.20
Para-Toluene-Sulfonamide, 175D bbls	.40	.41
Para-Toluene-Sulfonchloride, 410D bbls	.20	.22
Para-Toluidine, 350 lb bbls wks	.40	.42
PARIS GREEN,		
Arsenic Basis, 500D kegs	.19	.20
Kegs, 100 lbs.	.21	.22
PETROLATUM, green 300lb bbls lb	.02%	.03
Phenol Small drums 250-100lb	.17	.20
Phenyl-Alpha-Naphthylamine 100D kegs	...	1.35
Phosphorus, red 110D cs	.60	.65
Yellow 110D cs wks	...	.32
Phosphorus-Oxychloride 175D cyls	.35	.40
Phosphorus Sesquioxide 100D cases	...	.46
Phthalic, Anhydride, 100D bbls	.18	.20
Potash, Caustic, Imp., c-l, cks	...	.07%
Domestic, wks	...	.07%
POTASH SALTS, rough		
Pot. Murate basis 80% bgs ton	...	36.40
Pot. Sulfate, basis 90% bgs ton	...	47.50
Pot. & Mag. Sulfate basis 48% bgs	...	27.00
Manure Salts basis 30% bulk ton	...	18.75
Manure Salts basis 20% bulk ton	...	12.40
Kainit, basis, 12.4% bulk ton	...	9.00
Kainit, basis, 14% bulk .ton	...	9.50
tons 10%		
POTASSIUM Bicarb USP 320 D bbls	.09	.09%
Bichromate, crys., 725D cks	.08%	.08%
Powd., 725 cks wks	.12	.12%
Binoxide, 300D bbls	.16	.17
Bisulfate, 100D kegs	...	.30
CARBONATE, 80-85% calc.		
800D cks	.05%	.05%
Chlorate cryst powd 112D kegs	...	.08%
wks	.08%	.09
Imp., 112D NY	.08%	.08%
Chloride, crys., bbls	.05%	.05%
Chromate, kegs	.27	.28
Cyanide 110D cases	.55	.57%
Metabisulfite, 300D bbls	.11%	.12
Oxalate, neutral, 225 bbls	.16	.17
PERMANGAN, USP, crys., 500D & 100D drs wks	.15%	.15%
Prussiate red, 112 D kegs	.87%	.38
Prussiate, yellow 500D casks	.18	.18%
Tartrate, neutral 100D kegs	...	.51
Titanium Oxalate, 200D bbls	...	.25
Pyridine, 50 gal drs	1.50	1.75
R SALT, 250 bbls wks	.45	.46
Salt, Common, rec Sodium Chloride	...	...
Salt Cake 94-96% c-l wks .ton	19.00	20.00
White 87% wks .ton	15.00	17.00
SALTPETRE, Double refined		
Granular, 450-500D bbls	.08%	.06%
Satin White, 500D bbls	...	.01%
SILICA		
Crude, bulk, mines .ton	6.00	7.00
Refined, floated bags .ton	15.00	30.00
Air floated bags .ton	32.00	50.00
Extra, floated, bags .ton	55.00	65.00
SODA ASH, 58% light		
bags delivered NY 100D	2.14	2.29
Contract, c-l bgs wks 100D	...	1.82%
58% dense-c-l bgs wks 100D	...	1.82%
CAUSTIC, 76% solid		
drums del'd NY 100D	3.76	3.91
Ground & Flake 76%	...	...
drums del., NY ...100D	4.18	4.21
Contract c-l wks ...100D	...	3.00
SODIUM ACETATE, crys 450D bbls		
wks	.04%	.05

Chemicals

Meta-phenylenediamine — Other than closing contracts for next year, the market is without feature. Prices are extremely firm at 90c lb. in barrels.

Meta-Toluenediamine — Also without feature and firm prices of 71c@72c lb. Contracts have been entered with but little hesitation at 70c lb. and the outlook for 1928 is very promising.

Methanol — Leading producers report a strong market with sales in tank cars this past week at 49½c gal. This opinion is not voiced in all quarters with some factors reporting lower levels possible.

Ortho-Toluidine — Conditions surrounding this market are very strong, prices are quoted at 29c for barrels and contracts at 28c lb.

Para-Nitrotoluene — Contract closings have practically been completed at current prices which show no tendency to move either way.

Potash, Caustic — Both imported and domestic are quiet in all directions and the market is about about steady at quoted levels.

Tin Salts — There has not been any change in the price for the past two weeks with the market held at 17¾c lb. for bichloride, 42c lb. for crystals and 36c lb. for tetrachloride.

Toluidines, Mixed — Spot business is rather dull at 31c@32c lb. and contracts have been entered over next year, for sizable quantities at the lowest quotation of 30c lb.

Zinc Ammonium Chloride — Domestic makers find a slightly better market in some directions, though it has not caused any particular recovery in the price, which was reduced last month to 5¾c lb. in all directions.

OILS AND FATS

Chinawood Oil — Has made a strong recovery following sharp decline in prices last reported. Spot is still unchanged at 14¾c@15c lb., but the Coast market for December shipment was at 12¾c lb. Jan.-Feb.-Mar. price at the Coast is 12¾c lb.

Coconut Oil — Prices on Ceylon and Manila in barrels at New York have advanced, both being quoted at 9¾c@10c lb. All other grades are unchanged at quoted prices although business has improved somewhat.

Cod Oil — Increased activity is reported in this market although prices have not advanced over those quoted last week. Barrels are now

**Sodium Bicarbonate
Zinc Metal**

SODIUM (Cont.)		
Bicarbonate 400D bbls NY100D	...	2.41
Bichromate, 500D casks wks	.06%	.06%
Bisulfite, 500D bbls wks	...	.04
Carbonate 350D bbls NY 100D	1.30	1.35
Chloride, tech	12.00	13.00
Chlorate, 112D kegs wks	.06%	.06%
Cyanide 96-98% 100 & 250 D drums wks	...	.20
Fluoride, 300D bbls wks	.08%	.09
Hypochlorate Soln 100D cys	...	.05
Hydroxide 200D bbls fob wks	.22	.24
HYPOSULFITE, tech., pea crys		
375D bbls., wks 100D	2.65	3.05
Regular crys., bbls wks 100D	2.40	2.65
Metanilate, 150 lb bbls	...	.45
Naphthionate, 300D bbls	.55	.57
Nitrate crude, 95% 200D bgs	...	2.45
c-l NY ...100D	...	2.45
Dec. Shipment ...100D	...	.08
Nitrate, 500D bbls spot mks	.08	.08%
Ortho-Chloro-Toluene Sulfonate	...	...
175D bbls wks	.25	.27
Oxalate, neutral, 100D kegs	.30	.33
Perborate, 275D bbls	.21	.22
Phosphate, di-sodium tech 550D bbls	3.25	3.55
Para-Toluene Sulfonate 175D bbls	.08	.09
Tri-sodium tech-bbls 100D	...	3.90
PRUSSIAE, yellow 350D bbls		
wks	.12	.12%
Pyrophosphate 100D kegs	.13%	.14
Silicate, 40° turbid, 55 gal drums wks	.85	1.10
40° clear drs wks 100D	1.20	1.45
Silicofluoride 450D bbls NY	.04%	.05
Stannate, 100D drums	.48%	.49
Sulfanilate 400D bbls	.16	.18
Sulfate Anhydrous 550D bbls	...	...
c-l wks	.02%	.02%
Sulfide, 80% solid, 650D drs	...	.04
le-1 wks	.03%	.04
30% crys 440D bbls wks	.02%	.02%
Sulfite, crys 400D bbls wks	.03%	.03%
SOLVENT NAPHTHA, 110 gal drs		
wks	.35	.40
STRONTIUM, Carbonate, 600 D bbls		
wks	.07%	.07%
Nitrate, 600D bbls NY	.08%	.09
SULFUR Crude, fob mines .ton	18.00	19.00
Brimstone Broken Rock 250D bgs	...	2.05
c-l	...	2.85
Roll, 1 c-l bbls NY 100D	2.65	2.85
Flour, Heavy bgs c-l ...100D	...	2.50
For Disting c-l 99½% 100D bgs NY	...	2.40
Flowers 100% 155D bbls	...	3.45
NY c-l ...100D	...	...
Sulfur Chloride, red, 700D drs	...	.05
wks	.05%	.05%
Yellow, 700D drs wks	.03%	.04%
Sulfur Dioxide, 150D cyl	.08	.08%
Extra Dry, 100D cyl	.17	.19
Sulfuryl Chloride, 600D drs	.65	.70
Tar Coke Oven, Tks., wks .gal	.07	.08
Tetralene, 50gal drs wks	...	.20
Thiocarbamid, 170D bbls	.22	.24
TIN, metal Strait, NY	...	.58
Bichloride, 50% sol'n 100D bbls wks	...	.17%
Crystals, 500 lb bbls wks	...	.42
Oxide, 300 lb bbls wks	...	.75
Tetrachloride, 100 lb drs wks	...	.36
Titanium Oxide 200D bbls	...	.40
Pigment, bbls wks	.13%	.14
Toluidine, 350D bbls	.90	.94
Toluene, 8,000 gal tnk cars wks gal	...	.35
110 gal drs wks	...	.40
Toluidine, Mixed, 900D drs wks	.81	.82
Toner Lithol Red bbls	.85	.90
Para Red bbls	.75	.80
Toluidine	1.75	1.80
Triacetin, 50gal drs wks	3.80	3.90
Triphenylguanidine	.89	.73
Urea Pure, 112D cases	.18	.20
Vermilion English kegs	...	1.95
XYLENE, 10° tanks wks	...	.32
Com'l tanks wks	.30	.32
Xylidine Com'l	...	.38
ZINC METAL, high grade slabs		
c-l NY ...100D	...	6.40
ZINC Amm Chloride, powd 400 D bbls		
...	...	.05%
Carb. tech., bbls NY	.09%	.10
Chloride, fused 600D drs wks	...	.08
Granulated, 500 lb bbls wks	.06%	.06%
Solution 50% tnks wks 100D	...	3.00
Cyanide, 100D drs	.40	.41
Dust, 500D bbls c-l wks	...	.09
Oxide, Amer., bags wks	.07%	.07%
French, 300D bbls wks	.10%	.12%
Sulfate, 400 lb bbls wks	.03%	.03%
Sulfide, 500 lb bbls	.30	.32
Sulfocarbonate, 100D kegs	.29	.30



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Solvay 76% Caustic Soda
Solvay Liquid Caustic Soda
Solid—Flake—Ground
Solvay Super Alkali
(Trade Mark Registered)
Solvay Snowflake Crystals
(Trade Mark Registered)
Solvay Laundry Soda
Solvay Cleansing Soda
Solvay Tanners Alkali
Solvay Tanners Soda
Solvay Calcium Chloride
Solvay Caustic Potash Liquor 45%
Solvay Sodium Nitrite
Solvay Ammonium Chloride
Solvay Ammonium Bicarbonate
Solvay Paradichlorobenzene
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Solvay Liquid Chlorine

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Atlanta

Oils & Fats

Soya Bean Oil

Oils & Fats

Sperm Oil

Glue

Oils & Fats

Castor, No. 1, 400 lb bbls	..14	: .14%
No. 3	..13½	: .14
Blown, 400 lb bbls	..17	
China Wood bbls spot NY	..14½	: .15
Tanks, Spot NY	..nom.	
Coast tanks—Jan.	..12%	
Coconut Caylon 375 lb bbls NY	..09½	: .10
8,000 gal tanks NY	..08%	
Cochin, 375 lb bbls NY	..10	: .10½
Tanks, NY	..09½	: .08%
Manilla bbls NY	..09½	: .10
Tanks, NY	..08%	: .08%
Tanks, Pacific Coast	..08%	: .08½
Edible bbls N Y	..12	: .12½
Cod Newfoundland, 50 gal bbls gal.	..63	: .65
Tanks, NY	..62	: .63
Cod Liver, see Cod Liver Oil under Chemicals		
Copra, bags	..06	: .06½
Corn, ref. 375 lb bbls NY	..11½	: .11½
Tanks	..11	: .11½
Crude tanks mills	..09½	: .09%
Bbls, NY	..10½	: .11
Cottonseed Crude mill	..08%	
PSY 100 bbls spot	..10½	: .10½
Dec.-Mar.	..10½	: .10½
White, 100 bbls lots NY	..11½	: .11½
Degras, Amer., 50 gal bbls NY	..04½	: .04½
English light bbls NY	..05½	: .05½
Brown, bbls NY	..04½	: .04½
Greases choice white bbls NY	..10½	: .10½
Yellow	..07½	: .07½
Brown	..07½	: .07½
LARD OIL, edible prime	..16½	: .16½
Off prime bbls	..13%	: .13%
Extra bbls	..13	: .13
Extra No. 1 bbls	..12½	: .12½
LINSEED, raw c-1 bbls spot	..9.6	
Five bbls raw	..10.0	
Tanks raw	..8.8	
Menhaden tanks Balt	..46	
Light pressed, bbls NY	..63	: .64
Yellow pressed, bbls NY	..66	: .67
Blown bbls NY	..90	
Extra bleached bbls NY	..67	: .68
Mineral Oil, white, 50 gal bbls gal	..80	: .90
Russian gal	..95	: 1.00
Neatsfoot 20 deg. et., bbls NY	..18½	: .18½
Pure bbls NY	..16½	: .16½
CP bbls NY	..18½	: .18½
Extra bbls NY	..12½	: .12½
Oleo Oil, No. 1 bbls NY	..18	: .18
No. 2 bbls NY	..16½	: .16½
No. 3 bbls NY	..14½	: .14½
OLIVE, denatured bbls NY	..1.35	
Edible, bbls NY	1.90	: 2.00
Foots bbls NY	..09½	: .09½
Palm Lagos, 1,500 lb casks	..08	: .08
Niger casks	..07½	: .07½
Palm Kernel asks	..09	: .09½
Peanut refined bbls NY	..15	: .15½
Crude, bbls NY	..12	: .12½
Perilla, bbls NY	..13½	: .13½
Tanks Coast	..11	
Poppseed bbls NY	1.70	: 1.75
Rapeseed bbls NY Japanese	..80	: .82
English	..nom.	
Blown bbls NY	1.01	: 1.03
Red Oil, distilled bbls	10.00	: 10½
Tanks	..09½	: .09½
Salmon, 8,000 gal tks Coast	..50	: .nom.
Sardine, Tanks Pacific Coast gal	..45	
Sesame edible yellow bbls	..13½	: .13½
White	..14	: .15
Sod Oil, bbls NY	..40	: .40
SOYA BEAN, crude tks Pac Cat. b.	..09%	
Crude, tks NY	..nom.	
Crude, bbls NY	..12½	: .12½
Refined bbls NY	..13½	: .13½

at 63c@65c gal., while tanks at New York are at 62c@63c gal.

Corn Oil — Crude oil is reported to be somewhat scarce and following the trend of cottonseed has advanced in price. Crude oil in tanks at the mills is quoted at 9¼c@9½c lb., while barrels at New York are at 10¾c@11c lb.

Cottonseed Oil — Has made a very strong recovery since last reported. On Saturday, crude oil was at 8¾c lb., while PSY was at 10¼c lb. in a steady market, an advance of ½c lb. since last reported here. Average Jan.-Mar. price was also 10¼c lb.

Greases — Choice white and brown have advanced in price, the former being quoted at 10¼c lb. and the latter at 7¼c@7½c lb. Yellow is unchanged at 7¾c lb.

Linseed Oil — Conditions continue exceptionally quiet without any price changes. Spot is now 9.6c lb., raw oil in tanks, 8.8c lb., while the five-barrel price is 10.0c lb.

Neatsfoot Oil — Twenty degree cold-test has advanced to 18¾c lb., but other grades remain unchanged in price. Pure is quoted at 16½c lb., CP at 18½c lb., and extra at 12½c lb.

Olive Oil — Spot price on denatured oil is unchanged at \$1.35 gal. Foots is also firm at 9½c@9¾c lb.

Palm Oil — Interest is increasing due to strong position of tallow. Prices, however, are as yet unchanged. Lagos being quoted at 8c lb. and Niger at 7½c@7¾c lb.

Rapeseed Oil — A surplus is reported in Japanese, although no price changes have been reported since last week. Japanese is at 80c@82c lb., blown is unchanged at \$1.01@\$1.03 lb., while English is purely nominal.

Tallow — Extra has advanced to 8¾c lb. and is reported to be in an extremely strong position. Most factors believe that it is headed for a 9c market after the first of the year. Even now it is said to be in a much stronger position than is generally known and that all sales and prices have not been reported. Edible remains unchanged at 11c lb.

INDUSTRIAL RAW MATERIALS

Albumen — All grades of albumen are very quiet and the little amount of demand seen is confined to single drum lots. Prices are unchanged and appear firm owing to

Sperm 38° et., blehd, bbls NY gal	..84	: .85
45° cold test blehd bbls NY gal	..79	: .80
STEARIC ACID		
Double pressed, bags dist	..11½	: .11½
Double pressed, bags saponified	..11½	: .12
Carlots	..11	
Triple pressed bags dist	..13½	: .13½
Carlots	..13	
Stearine Oleo bbls	..10½	
Tallow edible tierces	..11	
City, Extra loose	..08½	
Tallow Oil, acidless tks NY	..10½	: .10½
Bbls c-1 NY	..11½	: .11½
Whale, nat winter bbls NY	..76	: .78
Blehd, winter bbls NY	..78	: .80
Extra blehd bbls NY	..80	: .82
Turkey Red, Oil, single bbls	..11	: .12
Double	..14	: .16

Industrial Raw Materials

Albumen, egg edible	..82	
Tech., 100 lb drs	..80	
Blood, 225 bbls	..55	: .55
Vegetable edible	..80	: .85
Technical	..50	: .55
Annatto, fine	..41	: .48
Archil, double 600 bbls	..12	
Triple, 600 lb bbls	..14	: .15
Con, 600 lb bbls	..16	: .18
Asbestine c-1 wks	..14.75	
Bees Wax, white cases	..56	: .58
Yellow, refined cases	..42	: .43
Crude, bags	..37	: .38
Blood dried fob NY	..5.25	
Chicago	..5.00	
S Am Shipment	..4.95	
Bone Raw, Chicago	29.00	: 30.00
Bone Meal, 3 & 50 imp	32.00	: 37.00
Bone Ash 100 lb kegs	..06	: .07
Black 200 lb bbls	..08½	: .08½
Candelilla Wax, bags	..27	: .28
Carnauba Wax Flor bags	..50	: .nom.
No. 1 Yellow, bags	..59	: .60
No. 2, regular bags	..55	: .56
No. 2, N. Country bags	..36	: .38
CHARCOAL		
Hardwood, lump, bulk wks	..18	: .19
Wood, powd., 100 lb bbls	..04	: .05
Willow, powd., 100 lb wks bbls	..06	: .06½
Chestnut clarified 25% tks wks	..02	: .02½
Bbls, wks	..02½	
Powd., 60% 100 lb bags wks	..04½	: .05
Decolorized bags wks	..05½	: .06
Codbear, English	..16	: .17
Cutch Rangoon, 100 lb bales	..18½	: .18½
Borneo solid 100 lb bales	..06	: .07
Cyanamide, bulk, c-1 wks Amm unit	..1.67½	
Dextrin, white corn 140 lb bags	..3.72	
c-1	..100 lb	: .3.72
Canary	..100 lb	: .3.77
Potato, white 220 lb bags 1c-1 lb	..08½	: .08½
Yellow, 220 lb bags	..08½	: .08½
Taploca, 200 bags 1c-1 lb	..08	: .08½
Divi Divi Extract	..04	: .nom.
Pods, bags ship	..nom.	
Egg Yolk, 200 lb cs	..76	: .77
Ester Gums Dark, 280 lb bbls	..13½	: .14
Light 280 bbls	..14	: .14½
Fish Scrap, dried wks	..nom.	
Acid Bulk 7 & 3½ Deliv	..nom.	
Norfolk & Balt basia	..nom.	
Flavine Lemon 55 lb cs	1.10	: 1.15
Orange 70 lb cs	1.10	: 1.15
Fossil Flour	..02½	: .04
Fustic, solid 50 lb boxes	..20	: .23
Crystals, 100 boxes	..20	: .22
Liquid 51° 600 lb bbls	..09	: .10
Fustic, sticks	30.00	: 32.00
Chips	..04	: .05
Gall extract	..20	: .21
Gambler 25% liq., 450 lb bbls	..12	: .14
Common 200 lb cases	..08	: .09
Singapore, cubes, 150 lb bags	..11	: .12
Gelatin Technical 100 lb cs	..45	: .50
bags c-1 NY	3.14	: 3.24
Glucose (Grape Sugar) dry 70°		
80° bags c-1 NY	3.24	: 3.34
Tanners' Spel 100 bgs 100 lb	..3.14	
GLUE, pure white bbls	..22	: .26
Medium white, bbls	..20	: .24

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Gums
Oak Bark

Industrial Raw Materials

Osage Orange
Whiting

GUM, Accroides, Red, coarse and fine, 140-150 lb bags03%	.04%
Powdered, 150 lb bags .....	.06	.08%
Accroides, Yel. 150-200 lb bags .....	.18	.20
Animi (Zanzibar) Bean and pea		
250 lb cases .....	.35	.40
Glassy, 250 lb cases .....	.50	.55
Asphaltum, Baradoes, Manjak		
200 lb bags .....	.09	.12
Egyptian, 200 lb cases .....	.15	.17
Gilsonite selecta 150 lb bags ton	55.00	60.00
Benzoin, Sumatra, Tech., 120 lb cases		
Copal, Congo, 112 lb bags .....	.33	.35
Water White, .....	.35	.36
Light Amber, .....	.12%	.14
Dark Amber, .....	.08%	.09
Clean Opaque, .....	.14	.15
Copal, East Indian 224 lb cases		
180 lb bags—		
Pale, E. I. Bold .....	.17	.17%
Pale, E. I. Chip .....	.07%	.08
180 lb bags—		
Copal, Manila, 180-190 lb Baskets—		
Pale Bold, Loba A. ....	.16	.16%
Pale Bold, Nuba, Loba B. ....	.15	.15%
Pale, Bold, Loba C. ....	.13	.13%
Pale Nuba, P. N. ....	.12	.12%
Pale Bold, 224 lb cases .....	.16	.18
Copal, Pontinak, 24 lb cases—		
Pale, Bold genuine No. 1 lb .....	.25	.25%
Pale, genuine spot chips lb .....	.13	.14%
Damar Batavia standard		
136 lb cases .....	.23	.23%
Batavia E Seeds 136 lb cs .....	.17	.17%
Batavia F Splinters 136 lb Cases and bags .....	.14	.14%
Batavia, Dust, 160 lb bags .....	.10%	.11%
Singapore No. 1 224 lb cs .....	.30	.30%
Singapore No. 2, 224 lb cs. lb. ....	.20	.21
Singapore No. 3, 180 lb bags lb. ....	.14	.15
Elemi, No. 1, 80-85 lb cs. lb. ....	.13%	.16
No. 2, 80-85 lb cases .....	.13	.13%
No. 3, 80-85 lb cases .....	.12	.13
Kauri No. 1, 224-226 lb cs. lb. ....	.50	.57
No. 2, fair pale 224-226 lb cases .....	.35	.38
Bush Chips 224-226 lb cases .....	.38	.40
Pale Chips 224-226 lb cases lb .....	.24%	.26
Brown Chips 180-200 lb bags lb .....	.10	.12
Sandarac Prime quality 220 lb bags and 300 lb cases .....	.26	.27
Graphite crude 220 lb bags	15.00	35.00
Flake, 500 lb bbls .....	.05	.09
HEMATINE, Paste, 500 lb bbls .....	.11	.11
Crystals, 400 lb bbls .....	.17	.20
Hemlock, 25% 600 lb bbls wks .....	.03%	.03%
Bark .....	.12	.16.00
Hyperic, 51° 600 lb bbls .....	.12	.15
Indigo Madras bbls	1.28	1.30
20% paste drums .....	.14	.15
Solid powd .....	.07%	.08
Japan Wax 224 lb cs .....	.18%	.19
KIESELGUHR, 95 lb bgs NY	60.00	70.00
Larch 25% 600 lb bbls wks .....	.03%	.04
Powd. 100 lb bags wks .....	.08	.09
Logwood 51° 600 lb bbls .....	.08%	.08%
Lower grades .....	.07%	.08
Solid, 50 lb boxes .....	.12%	.12%
LOGWOOD sticks	20.00	27.00
Chips 150 lb bags .....	.03	.03%
Madder, Dutch .....	.24	.27
Marble Flour bulk	10.00	12.00
Mangrove Bark, African	40.00	42.00
Mangrove 55% 400 lb bbls .....	.03%	nom.
Montan Wax, crude bags .....	.06%	.07
Bleached bags .....	.24	.27
Myrobalans 25% liquid bbls .....	.04%	.04%
50% solid 50 lb boxes .....	.08	.08%
Myrobalans, bags, J1 .....	.48.00	
R2	38.00	
J2	38.00	
Nitrogenous Material bulk .....	.335	
NUTGALLS, Chinese, bags .....	.17	.18
Allepby bags .....	.25	nom.
Powd. bags .....	.22	.24
Oak bark, whole	20.00	23.00
Ground	45.00	50.00
Oak, tanks wks .....	.03%	.04%
25-25% liq. 00 lb bbls wks .....	.04	.04%

strong underlying conditions in the primary markets.

Archil — Movement is very light at unchanged prices of 12c lb. for double 14c@15c lb. for triple and 16c@18c lb. for concentrated.

Blood — The only change in the week's market occurred in the price of South American. Last week's offerings at \$5.00 unit failed to produce any sizable amount of business and holders reduced their asking price to \$4.95 unit. The domestic markets are very quiet and latest sales were made at \$5.25 unit in New York.

Dextrin — All grades are quiet and no price revisions have been made. Corn is moving with fair rapidity but the remaining grades are dormant.

Divi-Divi — A nominal market still holds. Supplies are unavailable and higher prices are looked for when present conditions are relieved.

Glues — Also on a quiet basis and with movement confined to less than barrel lots, priced somewhat higher than 22c@26c lb. for pure and 20c@24c lb. for medium.

Japan Wax — The recent flurry of activity has subdued but prices remain in the same position. Spot sellers are quoting 18½c@19c lb. but some business has been done at 18c lb.

Rosins — The local market is priced as follows: B, \$8.85; D,E,F, \$8.90; G, \$9.00; H, \$9.05; I, \$9.05; J, \$9.05; K, \$9.10; M, \$9.20; N, \$10.25; WG \$11.25; WW \$12.25.

Shellac — A decline of 1c lb. featured the market for the week. The supply was in much better proportions and it is doubted that current prices will be maintained over the next few weeks owing to the increased supply on spot and in transit. The market for T. N. is 54c@55c lb., superfine 57c@58c lb. garnet 53c@55c lb. and bone dry 62c@64c lb.

Sodium Nitrate — The market remains in a dull position with very little buying to feature it. Prices are maintained at \$2.40 100 lbs. for bulk lots and \$2.45 100 lbs. for carlots. It is not thought, that this consistent lack of interest will weaken prices but a revival of activity might cause an advance.

Tankage — There have been no changes in the market, some sales were made f.o.b. New York at \$5.10 and 10c unit and Chicago quotations remained at \$3.85 and 10c unit. South American offerings were heavier at \$4.75 and 10c unit.

Osage Orange 51 deg. liquid	.....D.	.07	.....	.07%
Powd. 100 lb bags	.....D.	.14%	.....	.15
Crystals	.....D.	.16	.....	.17
Paracouarone, 230 lb drums	.....D.	.12	.....	.15
Paraffin, ref'd 200 lb drums	.....D.	.12	.....	.15
Paraffin, ref'd 200 lb cs alaba	.....D.			
123-127 deg. M.P.	.....D.	.06%	.....	.06%
128-132 deg. M.P.	.....D.	.07%	.....	.07%
135-137 deg. M.P.	.....D.	.08	.....	.08%
138-140 deg. M.P.	.....D.	.08%	.....	.10
Phosphate Acid, 16% Bulk wks ton	.....			9.00
Phosphate Rock, f.o.b., mines				
Florida Pebble 68%	.....ton	3.00	.....	3.15
Florida Pebble 70%	.....ton	3.50	.....	3.65
Florida Pebble 72%	.....ton	4.00	.....	4.15
Florida Pebble, basic 75-74%	.....ton		.....	5.00
Florida Pebble, 75%	.....ton		.....	5.75
Florida Pebble, basic 77-76%	.....ton		.....	6.25
Tennessee, 72%	.....ton		.....	5.00
Pine Oil, stim., dist. bbls	.....gal.		.....	.70
Destructive dist.	.....D.	.63	.....	.64
Prime	.....bbl.	8.00	.....	10.60
Plaster Paris, tech., 250 lb bbls	.....bbl.		.....	3.30
Pumice Stone, lump 250 lb bbls	.....lb.	.04%	.....	.06
Lump, bags	.....D.	.04	.....	.05
Powdered, 350 lb bbls	.....D.	.02%	.....	.03
QUEBRACHO, 35% liquid tks.	.....D.	.03	.....	.03%
450 lb bbls c-1	.....D.	.03%	.....	.04
35% bleaching, 450 lb bbls	.....D.	.04	.....	.05
Solid 63% 100 lb bales c-1	.....D.	.05	.....	.05%
Clarified, 64% bales	.....D.		.....	.05
Quercitron, 51 deg. 450 lb bbls	.....D.	.05%	.....	.06
Solid, 100 lb boxes	.....D.	.10	.....	.13
Quercitron, bark, rough	.....ton		.....	14.00
Ground	.....ton	34.00	.....	35.00
Rosins (Solid in 600 lb bbls gross for net)				
R	.....	7.25	I	.....7.40
D	.....	7.25	K	.....7.50
E	.....	7.25	M	.....7.60
F	.....	7.25	N	.....8.50
G	.....	7.30	WG	.....9.50
H	.....	7.35	WW	.....10.50
(Sold in 600 lb bbls net, quotations based on a unit of 280 lb)				
Rosin Oil first run 50 gal bbls	.....gal		.....	.57
Second run bbls	.....gal.		.....	.62
Rotten Stone lump imp bbls	.....D.	.07	.....	.08
Lump selected, bbls	.....D.	.09	.....	.12
Powdered, bbls	.....D.	.02	.....	.05
Domestic bags mines	.....D.	24.00	.....	30.00
Sage Flour 150 lb bags	.....D.	.04%	.....	.05
Shellac, T. N., bags	.....D.	.54	.....	.55
Superfine bags	.....D.	.57	.....	.58
Garnet, bags	.....D.	.53	.....	.55
Bone dry, bbls	.....D.	.62	.....	.64
Spruce, 25% liquid tanks, wks	.....D.	.01	.....	.01%
bbls	.....D.		.....	.01%
Powd, 50% 100 lb bags wks	.....D.	.02	.....	.02%
Starch, rice, 200 lb	.....bbls.	.09%	.....	.10
Comd. Powd. 140 bgs. c-1	.....100 lb.		.....	3.07
Pearl, 140 lb	.....100 lb.		.....	2.97
Potato domestic, 200 lb bgs c-1	.....lb.	.06	.....	.06%
Imported bags duty paid	.....lb.	.06%	.....	.06%
Wheat, dom., thick bags	.....lb.	.06%	.....	.07
Thin, bags	.....lb.	.09%	.....	.10
Sol. Potato	.....lb.	.08	.....	.08%
Sumac, extract, liq 450 lb bbls	.....D.	.05%	.....	.06
Stainless, 600 lb bbls	.....D.	.11	.....	.11%
Sumac, Sicily leaves 100 lb bags	ton	130.00	.....	nom.
Ground shipment	.....ton		.....	72.00
Virginia, 150 lb bags	.....ton	55.00	.....	60.00
TALC, Italian 220 lb bags NY	ton	40.00	.....	50.00
Refined, white bags	.....ton	50.00	.....	55.00
French, 220 lb bgs NY	.....ton	30.00	.....	35.00
Refined, white bags	.....ton	38.00	.....	45.00
Dom., crude 100 lb bags NY	ton	12.00	.....	15.00
Refined 100 lb bags NY	ton	16.00	.....	18.00
Tankage, ground NY	.....unit	5.10	& .....	.10
High grade fob. Chicago	.....unit	3.85	& .....	.10
So. Am. cif.	.....unit	4.75	& .....	.10
Tapioca Flour, high grade bgs.	.....lb	.04%	.....	.05
Medium grade, bgs	.....lb	.03%	.....	.04
Tar, Klin-burnt	.....bbl		.....	13.50
Retort bbls	.....bbl.	13.50	.....	15.50
Tripoli, 500 lb. bbls	.....100 lb.	2.50	.....	3.00
Turpentine Spirits bbls	.....gal.		.....	.51%
Wood steam Dist. bbls	.....gal.	.46	.....	.47
Valonia Cups 30-31% tan	.....ton		.....	nom
Beard, 42% ton bags	.....ton		.....	nom
Mixture bark bags	.....ton		.....	nom
Wattle Bark, bgs	.....ton		.....	72.00
Extract 55% dble bgs ex-dock	.....lb		.....	.05%
Whiting 200 lb bags c-1 wks 100 lbton		1.25
Alba bags NY c-1ton		13.00
Gilders, bags NY c-1100 lb.		1.35



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IMPORTS AT NEW YORK

Dec 13 to 19

- ACIDS**—Tannic, 12 brls., E. M. Sergeant Co., Hamburg
- ALUMINUM POWDER**—6 drs., O. Hommel & Co., Bremen
- ALBUMEN**—56 cs., Standard Bank of So. Africa, Hankow; **Egg**, 11 cs., Dodwell & Co., Shanghai; 56 cs., Hans Hinrichs Chem Co., Shanghai; 45 cs., Dodwell & Co., Hankow; 56 cs., Stein Hall & Co., Tientsin; 56 cs., French Kremer Co., Tientsin; **Powder**, 1 cse., J. Morningstar & Co., Hamburg
- AMMONIUM SALTS**—Carbonate, 19 pgs., Standard Bank of So. Africa, Liverpool; **Chlorate**, 55 cs., Solvay Sales Corp., Liverpool; **Sourel**, 3 cks., Mallinckrodt Chem orks., Havre
- ANTIMONY**—Crude, 735 cs., ah Chang Trdg Co., Kobe; 330 cs., ah Chang Trdg Co., Hankow; 460 cs., Harshaw Fuller & Goodwin, Shanghai; 150 cs., Nippon Yusen Kaisha, Kobe; **Ore**, 1216 bgs., atson Geach & Co., Antofagasta; **Oxide**, 250 bgs., Sino Java Hvg., Hankow; 250 bgs., A. Klipstein & Co., Kobe; 50 bgs., ah Chang Trdg Co., Kobe; **Regulus**, 250 cs., W. R. Grace & Co., Shanghai; 250 cs., order, Shanghai
- ALCOHOL**—Denatured, 311 drs., C. Esteve Arechib
- ARSENIC**—68 brls., American Smelting & Refining Co., Tampico
- CALCIUM**—Lactate, 10 cs., Davies Turner & Co., Hamburg
- CARBONS**—57 cs., H. Reisinger, Bremen
- CASEIN**—280 sks., Atterbury Bros., Wellington; 500 sks., Atterbury Bros., Havre; 250 bgs., Hanover Nat Bank Buenos Aires
- CELLULOSE**—Acetate Fibre, 530 sks., Celluloid Corp., Liverpool
- CHALK**—100 bgs., C. M. Chrystal, Antwerp; 1500 bgs., Hammill & Gillespie, Antwerp; 5589 bgs., Taintor Trdg Co., Antwerp; 200 bgs., Nat City Bank, Antwerp; 500 tons, Taintor Trdg Co., London; 1254 bgs., Nat City Bank, Antwerp
- CHEMICALS**—200 brls., Hummel & Robinson, Bremen; 3 cs., Pfaltz & Bauer, Hamburg; 23 cs., Eimer & Amend, Hamburg; 50 drs., Superfos Co., Hamburg; 15 brls., H. Falck & Co., Hamburg; 5 brls., Hummel & Robinson, Hamburg; 25 cs., Pfaltz & Bauer, Hamburg; 24 cs., H. Sundheimer, London; 36 cs., Whittaker Clarke & Daniels, Rotterdam; 81 cs., Hummel & Robinson, Rotterdam
- CINCHONIDINE**—10 cs., R. W. Greeff & Co., Rotterdam
- CINCHONINE**—5 cs., R. W. Greeff & Co., Rotterdam
- COBALT**—Sulfate, 40 brls., African Metals Corp., Antwerp
- COLORS**—1 cse., National Aniline & Chem Co., Antwerp; 34 cs., Carbic Color & Chem Co., Havre; 4 cs., Geigy Co., Havre; 28 cs., Ciba Co., Havre; 2 cs., Chem Nat Bank, Havre; 3 cs., Interstate Trust Co., Havre; 3 cs., Baldwin Universal Co., Havre; 7 cs., Sandoz Chem Works, Havre; 3 cs. General Dyestuff Corp., Hamburg; **Bronze Powder**, 24 cs., Baer Bros., Hamburg; 11 cs. Bryant & Heffernan, Bremen; 17 cs., Hensel Bruckmann & Lorbacher, Bremen; 2 cs., B. F. Drakenfeld Co., Bremen; 21 cs., A. Hurst Co., Bremen; 14 cs., B. F. Drakenfeld Co., Bremen; 2 cs., T. D. Downing & Co., Bremen; 5 cs., G. P. Seide, Hamburg; **Coal Tar**, 1 cse., Grasselli Dyestuff Corp., Hamburg
- COPPER**—Oxide, 8 cs., Federal orp., Liverpool
- DIETHYLSULFATE**—2 cs. Interped Agency, Hamburg
- DRIED BLOOD**—419 bgs., H. J. Baker & Bro., Buenos Aires
- EXTRACTS**—Quebracho, 2342 bgs., Tannin Corp., Buenos Aires; 1021 bgs., J. C. Andresen, Buenos Aires; 1929 bs., J. C. Andresen, Buenos Aires; **Seaweed**, 54 bgs., National Gum & Mica Co., Liverpool
- GALLNUTS**—740 bgs., 1 cse., McKesson & Robbins, Shanghai; 147 bgs., Bingham & Co., Hankow
- GELATINE**—200 bgs., T. W. Dunn & Co., Bremen; 3 cs., Eastman Kodak Co., Bremen
- GLAUBER SALT**—250 brls., Monmouth Chem Corp., Hamburg
- GLUE**—400 bgs., W. R. Grace & Co., San Antonio
- GLYCERINE**—64 cs., Amtorg Trdg Corp Hamburg; 20 drs., Lo Curto & Funk, Hamburg; 31 drs., American Express Co., London; 34 drs., G. Uhe, Rotterdam
- GRAPHITE**—37 brls., H. P. Winter & Co., Colombo; 77 brls., J. Dixon Crucible Co., Colombo; 333 bgs., Brown Bros. & Co., Colombo; 600 cs., G. F. Pettinos, Moji; 1875 bgs., Mitsui Bussan Kaisha, Fusen
- GUMS**—Arabic, 12 brls., W. Mohrman Co., Antwerp; 561 bgs., Mrs. Trust Co., Port Sudan; **Copal**, 2635 bgs., L. C. Gillespie & Co., Matadi; 220 bgs., Brown Bros & Co., Antwerp; 250 sks., France Campbell & Darling, Manila; 64 bgs., Guaranty Trust Co., Singapore; 100 cs., 128 bgs., Baring Bros., Singapore; 19 bgs., Kidder Peabody Acceptance Corp., Antwerp; 227 bgs., W. Schall & Co., Antwerp; 500 bgs., Brown Bros & Co., Antwerp; **Damar**, 50 cs., Baring Bros & Co., Singapore; 50 cs. Chem Nat Bank, Singapore; 50 cs., L. C. Gillespie & Sons, Singapore; 192 bgs., Brown Bros & Co., Singapore; 526 bgs., 425 cs. Baring Bros. & Co., Singapore; 64 bgs. Chem Nat Bank Singapore; 192 bgs., L. C. Gillespie & Sons, Singapore; 140 bgs., France Campbell & Darling, Singapore; **Elemi**, 258 cs., order, Manila; **Kauri**, 40 cs., 170 sks. Strook & ittenborg Auckland; 100 cs., 250 sks. Paterson Boardman & Knapp, Auckland; 21 cs., G. W. S. Patterson Co., Auckland; 105 cs., 204 sks., S. Winterbourne, Auckland; 93 cs., Davies Turner & Co., Auckland; 400 sks., 20 cs., A. Klipstein & Co., Auckland; 171 cs., 169 bgs., L. C. Gillespie Co., Auckland; 155 cs., Nat Bank of Commerce, Auckland
- IRON OXIDE**—100 brls., Hummel & Robinson, Malaga; 52 cs., Reichard Coulston Inc., Liverpool
- LITHOPONE**—15 cs., Whittaker Clarke & Daniels, Rotterdam; 4 cs., B. Moore Co., Rotterdam
- MAGNESIA**—Calcined, 61 cs., Schofield Donald & Co., Liverpool
- NICKEL**—Sulfate, 179 cs., Gallagher & Ascher, Havre
- OCHRE**—1000 bgs., F. B. Vandegrift & Co., Calcutta; 311 cs. Reichard Coulston Inc., Marseilles
- OILS**—Coconut, 1175 tons, SUPencer Kellogg & Sons, Manila; **Cod**, 100 drs. Mitsui & Co., Yokohama; 70 drs. Mitsui & Co., Kobe; 2 cs., Bowring & Co., St. Johns; **Codliver**, 100 brls., Brewer & Co., Oslo; 50 brls. Schieffelin Co., Oslo; 1 cse., E. R. Squibb & Son San Juan; 225 brls., P. R. Dreyer Co., Hamburg; 185 brls., order Hamburg; 50 brls., Fisher Hollinshed o., Hamburg; 25 brls., Magnus Mabree & Reynard, Rotterdam; **Haarlem**, 25 cs., Biddle Purchasing o., Rotterdam; **Olive**, 335 cs., J. P. Smith & Co., Marseilles; 110 cs., American Exchange Irving Trust Co., Malaga; 110 drs., J. B. Dewsnap, Malaga; 50 drs., Lazard Freres Malaga; 100 bgs., Nat City Bank, Malaga; 105 cs., A. Goldstein & Co., Genoa; 50 cs., I. G. Corrales & Bros., Genoa; 50 cs., G. Montagnino, Genoa; 300 cs., Italian Impgt. Co., Genoa; 175 cs., R. Martorelli, Genoa; 115 cs., G. Sasso & Sons, Genoa; 50 cs., Conte Verdi Olive Oil Co., Genoa; 100 cs., J. F. Cristani, Genoa; 350 cs., S. Galle & Co., Genoa; 250 cs., Italian French Prod Co., Genoa; 45 cs., E. Bracchi, Genoa; 50 cs., J. Solari & Co., Genoa; 55 cs., F. Vicinazzo, Genoa; 105 cs., Duilio Impgt Co., Genoa; 115 cs., Garneau & de Bruyn, Genoa; 365 cs. La Montagne Inc., Southampton; **Palm**, 422 bgs., Niger Co., Loanda; 1173 cs., 853212 kilos Niger Co., Matadi; 700 drs.,
- Niger Co., Port Harcourt; 168 cs., African & Eastern Trdg Co. Degama; 73 drs., 20 cs., Wishnick Tumpeor Co., Grand Bassam; 78 cs., Nat City Bank Grand Bassam; 442 cs., African & Eastern Trdg Co., Hamburg; 6 brls., African & Eastern Trdg Co., Liverpool; **Palm Kernel**, 437 tons, J. Bibby Sons, Liverpool; **Rapeseed**, 200 drs., Mitsui & Co., Kobe; 100 drs., I. R. Boody, Moji; 30 drs., Kongo Shokwai, Moji; 175 drs., Mitsui & Co., Kobe; 298 tons, Vacuum Oil Co., Kobe; 50 drs., W. Gilliam Trdg & Commercial Co., Rotterdam; **Sardine**, 595 tons, Procter & Gamble, Kobe; 414 tons, Brown Edward & Co., Tokio; 388 tons, Mitsui & Co., Kobe; 300 tons, Mitsui & Co., Yokohama; **Seal**, 100 cs., Bowring & Co., St. Johns; **Sulfur**, 200 brls., W. R. Grace & Co., Naples; 400 brls., Nat City Bank, Milazzo; 100 brls., Leghorn Trdg Co., Leghorn; **Osseine**, 1215 bgs., American Glue Co., Marseilles; 1025 bgs., Milligan Higgins Glue Co., Marseilles
- POTASSIUM SALTS**—Alum, 300 cs., A. Klipstein & Co., Antwerp; **Caustic**, 45 cs., Farmers Loan & Trust Co., Hamburg; **Chlorate**, 450 brls., E. Suter Co., Antwerp; 1400 bgs. Monmouth Chem Corp Hamburg; **Muriate**, 1000 bgs., Potash Impgt Corp., Antwerp
- PUMICE STONE**—Lump, 3020 bgs., 3 cs., Hinrich & Pearsall Canneto Lipari; **Powder**, 299 bgs., Hinrich & Pearsall Canneto Lipari
- QUICKSILVER**—500 flasks, Haas Bros., Alicante
- ROSIN**—129 cs., M. Grunhut, Hamburg
- SAL AMMONIAC**—40 cs., Brown Bros & Co., Hamburg
- SHELLAC**—200 bs. Brown Bros & Co., Calcutta; **Garnet**, 100 bs., Brown Bros & Co., Calcutta
- SODIUM SALTS**—Acetate, 35 cs., A. Klipstein & Co., Antwerp; **Hydro**, 40 kegs, General Dyestuff Corp., Liverpool; **Perborate**, 1 brl., Hensel Bruckmann & Lorbacher, Hamburg; **Nitrate**, 6350 bs., W. R. Grace & Co., Antofagasta; 3389 bgs., E. I. DuPont De Nemours o., Antofagasta; 6325 bgs. W. R. Grace & Co., Iquique; 1540 bgs., W. R. Greeff & Co., Oslo; **Phosphate**, 167 brls., A. Klipstein & Co., Antwerp; 246 cs., Rhodia Chemical Co., Rotterdam; **Silica Fluoride**, 134 cs., H. Sundheimer Co., Rotterdam; 100 drs., Superfos Co., Rotterdam; **Sulfate calc.**, 100 cs., Kuttroff Pickhardt Co., Rotterdam
- SPONGES**—3 cs. J. H. Rhodes & Co., Genoa; 53 cs., Lasker & Bernstein, Southampton; 52 brs., Lasker & Bernstein, Havana; 112 brs., J. H. Rhodes & Co., Havana; 50 brs., J. H. Rhodes & Co., Havana; 50 bl., John Manville Co., Havana; 9 bl., H. E. Dodds Co., Havana; 19 bl., American Express Co., Havana
- SULFUR**—Blue, 6 brls. Beaver Chemical Corp. Kobe
- TALC**—200 bgs., L. A. Salomon & Bro., Genoa; 39 brls., Lunham & Reeve, Leghorn
- TARTAR**—79 bgs., W. R. Grace & Co., Antonio; 84 sks., Royal Baking Powder Co., Marseilles
- ULTRAMARINE BLUE**—20 cs., Binney & Smith, Antwerp
- UMBER**—25 cs., C. B. Chrystal, Liverpool
- WAX**—40 cs., Orbis Products Trdg Co., Havre; **Bees**, 2 bgs., D. Steengraef, Arroyo; 40 sks., Brown Bros & Co., Alexandria; 92 bgs., C. S. Spence, Rotterdam; **Vegetable**, 27 bgs., Lange Bros & Co., Cristobal
- WOOL GREASE**—100 cs., J. H. Schroder Corp., Bremen
- WOODFLOUR**—750 bgs., B. L. Soberski, Oslo; 400 bs., State Chemical Co., Rotterdam
- ZINC**—Oxide, 65 brls., A. Klipstein & Co., Marseilles; 1 cse., A. G. Spaulding & Bros., London; 20 brls., Philipp Bros Antwerp; 35 cs., Smith Chemical & Color Co., Rotterdam; 35 cs., Roessler & Hasslacher Chemical Co., Rotterdam



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IMPORTS AT PHILADELPHIA

Dec 7 to Dec 14

BONE MEAL—6000 bags, Ralli Bros., Karachi
BONES—756 bags, order, Hull
CAUSTIC POTASH—139 drums, order, Hamburg
CHALK—44 casks, order, London; Crude, 50 tons, Brown Bros & Co., London
CHEMICAL MANURE—33 bags, Hosea aterer, London
CHEMICALS—242 drums, E H Bailey & Co., London; 25 carboys & 26 casks, H. Lundheimer, London
CLAY—4366 tons, various consignees, Fowey
CUTTLE FISH BONES—140 cases, order, Bordeaux
EPSOM SALTS—200 bags, order, Bremen
FLOUR—Tapoca, 250 bags, Baltimore Trust Co., Batavia; 250 bags, order, Batavia
FLUORSPAR—240 tons, Standard Bank of South Africa Ltd., Durban; 1102 tons, 17 cwt. order, Middlesboro
FULLERS EARTH—300 bags, L. A. Salomon & Bro., London
GLYCERIN—30 casks, order, Marseilles 10 drums, order, St. Nazaire
GYPSUM—600 bags, order, Bremen
LINSEED—32,906 bags, order, Buenos Ayres
MYROBALANS—2668 bags, Standard Bank of South Africa Ltd. Bombay
OCBRE—85 casks, Wishnick Tumpeor Co., Marseilles; 100 bbls., order, Marseilles
OILS—Palm, 39 casks, W & A Leaman Inc., Warri; Rapeseed, 50 drums, order, Kobe; 75 drums, W. R. Grace & Co., Osaka; 80 drums, order, Osaka; 50 drums Bank of America, Moyi; 200 drums, order
ORES—Chrome, 1500 tons, Harbison Walker Refractorios Co., Aghia Marinci; 200 tons, Harbison-Walker Refractorios Co., Kymassi; 2000 tons, E. J. Lavino & Co., Beira; Iron, 480 bbls., C. K. William, Malaga; Manganese; 600 bags, & 6000 tons, E. J. Lavino & Co., Sekondi
PEAT—Moss, 295 bales, Atkins & Durbrow Bremen; Mull, 700 bales, Atkins & Durbrow, Bremen
SODIUM SALTS—Nitrate, 513 bags, R. W. Greeff & Co., Inc., Skien
TALC—900 bags, order, Bordeaux

IMPORTS AT BOSTON

Dec. 10 to Dec. 17

ACID—Phosphoric, 50 demijohns, order, Hamburg
CHEMICALS—75 cks., order, Hamburg
EPSOM SALTS—300 bags, order, Hamburg
POTASH—Caustic, 25 drs., 10 cs., order, Hamburg
SODIUM—Flouride, 75 cks., 10 bbls., Stone & Downer Co., Hamburg
ZINC AMMONIUM CHLORIDE—23 cks., A. Klipstein Co., Antwerp

IMPORTS AT SAN FRANCISCO

Dec 3 to 10

BONE FLOUR—547 bags, order, Hamburg
CHEMICALS—100 cases Wells Fargo Bank Hamburg; 67 cases, Braun, Knecht & Heimann, Hamburg; 222 bags, order, Hamburg; 300 bags, order, Rotterdam
CHLORIDE—30 bbls., Balfour, Guthrie & Co., Antwerp; 29 drums, order, Antwerp
COPRA—872 tons, Kidder, Peabody Corp., Zamboanga; 280 tons, American Linseed Co., Cebu; 476 tons, Kidder Peabody Corp., Menado; 1568 tons, order, Menado; 670 tons, El Dorado Oil Works, Zamboanga; 896 tons, El Dorado Oil Works, Legaspi; 642 tons, El Dorado Oil Works, Tobaco; 656 tons, El Dorado Oil Works, Romblon; 319 tons, Vegetable Oil Corp., Boag; 237 tons, El Dorado Oil Works, Manila
GUM—Copal, 64 bags, Guaranty Trust Co of New York, Singapore; 70 bags, order, Singapore
KAPOC—250 bales, Lilienthal, Lee & Co., Sourabaya; 150 bales, Lilienthal, Lee & Co., Samarang; 207 bales, Simmons Co., Samarang; 25 bales, Balfour, Guthrie & Co., Samarang; 80 bales, Lilienthal, Lee & Co., Padang
OIL—Cod, 100 bbls., order, Antwerp; Rapeseed, 100 drums, Mitsui & Co., Ltd., Kobe
POTASH—1000 bags, Milson & Meyer, Hamburg
TAPIOCA—Flour, 165 bags, Hoyt, Shepston & Sciaroni
TURPENTINE—37 cases, I. Escobosa Jr., Acapulco

Exports Chemicals, Oils and Fats

EXPORTS AT NEW YORK

ACETONE—34 drs., Nov 5, Kobe; 320 drs., Nov 20, Liverpool
ACID—Citric, 1 kg., Nov 25, Vera Cruz; Cresylic, 9 drs., Nov 4, Chanarol; Hydrocyanic, 12 cys., Nov 20, London; Muratic, 115 cartons, Nov 25, Vera Cruz
Sulfuric, 33 carboys, Nov 4, Antofagasta
ALCOHOL—80 drs., Nov 5, Yokohama; 1 dr., Nov 5, Kobe; 38 drs., Nov 5, Kobe; Methyl, 48 drs., Nov 5, Yokohama; 80 drs., Nov 20, Liverpool; 34 drs., Nov 20, Liverpool
ALUMINUM POWDER—10 cs., Nov 25, Antwerp
AMMONIUM—Anhydrous; 50 cys., Nov 20, London; 19 cys., Nov 25, Tampico; 50 cys., Nov 20, London; 30 cys., Nov 25, Tampico; Sulfate, 500 bgs., Nov 23, Shanghai
BARIUM—Chlorate, 2 kgs., Nov 30, Bolivia
BONE ASH—69 bbls., Nov 4, Antofagasta
CALCIUM—Carbide, 10 cs., Nov 25 Vera Cruz; 500 drs., Nov 25, Tampico
CARBIDE—500 drs., Nov 11, Carbarien; 100 drs., Nov 11, Sagua
CARBON BLACK—290 bgs., Nov 4, Antofagasta
COLORS—1795 kgs., 81 drs., Nov 5, Shanghai; 9 drs., Nov 25, Vera Cruz; 66 kegs, 579 drs., 25 bbls., Nov 23, Kobe; 136 cys., Nov 23, Shanghai; 1441 drs., 1332 kgs., Nov 23, Dairen; 198 drs., 121 kgs., 24 bbls., Nov 23, Shanghai; Earth, 31 bbls., Nov 12, Buenos Aires; 25 bbls., Nov 26, Buenos Aires
COPPER—Sulfate, 98 bbls., Nov 25, Tampico; 100 cks., Nov 26, Rosario; 100 kgs., Nov 30, Antofagasta
CRESOLENE—5 cs., Nov 5, Kobe
CYANIDE—250 drs., Nov 25, Tampico; 1908 drs., Nov 25, Tampico
EARTH—11 bbls., Nov 5, Yokohama
ETHYLENE—Bichloride, 72 drs., Nov 20, Liverpool; 5 drs., Nov 25, Havre; Glycol, 5 drs., Nov 11, Liverpool
EXTRACT—Dyewood, 10 bbls., Nov 29, Bordeaux; Sumac, 8 bbls., Nov 25, Vera Cruz; Tanners, 6 drs., Nov 25, Havre; Witch Hazel, 20 bbls., Nov 16, Hamburg
FORMALDEHYDE—150 bbls., Nov 20, Liverpool; 3 bbls., Nov 25, Vera Cruz
GLUE—10 bgs., Nov 5, Shanghai; 8 bgs., Nov 25, Vera Cruz
GLYCERINE—1 dr., Nov 30, Mollendo
GRAPHITE—60 cs., Nov 11, Liverpool; 6 bbls., Nov 25, Havre; 6 bbls., Nov 16, Hamburg
INDIGO PASTE—1733 cs., Nov 23, Shanghai
LIME—Acetate, 7350 bgs., Nov 20, Liverpool
LINSEED OILAKE—8307 bgs., Nov 15, Rotterdam; 614 bgs., Nov 20, Liverpool; 2222bgs., Nov 20, Liverpool; 1286 bgs., Nov 11, Rotterdam; 2535 bgs., Nov 25, Antwerp; 2003 bgs., Nov 25, Antwerp
LITHOPONE—23 bbls., Nov 4, Chanarol
MAGNESIUM—Oxide, 4 cs., Nov 25, Vera Cruz; 11 bs., Nov 16, Hamburg
MAGNESIA TAR—4 bbls., Nov 4, Antofagasta
MALT—500 sks., Nov 15 Copenhagen
NICKEL OXIDE—112 bbls., Nov 15, Rotterdam
OIL—Cocanut, 10 bbls., Nov 30, Bolivia
Codliver, 25 bbls., Nov 15, Rotterdam; Neatsfoot, 5 bbls., Nov 25, Antwerp; **POTASSIUM SALTS—Chlorate**, 10 kgs., Nov 30, Bolivia; Iodide, 8 cs., Nov 23, Shanghai; Permanganate, 5 drs., Nov 30, Bolivia
PUMICE STONE—20 bbls., Nov 18, London
ROSIN—45 bbls., Nov 4, Port Natal
SODIUM SALTS—Ash, 350 bbls., Nov 11, Havana; 4 drs., 50 bbls., Nov 23, Manila; Bicarbonate, 326 kgs., Nov 23, Manila; 35 kgs., Nov 25, Progreso; 48 kgs., Nov 23, Bangkok; 21 cs., Nov 23, Vera Cruz; 26 cks., Nov 23, Kobe; Bisulfite, 10 bbls., Nov 11, Carbarien; Caustic, 36 drs., Nov 25, Progreso; 12 cs., 180 drs., Nov 25 Vera Cruz; 80 drs., Nov 25, Tampico; 100 drs., Nov 11, Havana; 100 drs., Nov 23, Manila; 4 drs., Nov 30, Mollendo; Chlorate, 10 drs., Nov 20, London; Hyposulfate, 200 kgs., Nov 23, Manila; Hyposulfite, 147 bbls., Nov 25, Tampico; Peroxide, 3 cs., Nov 30, Bolivia
SUGAR OF MILK—70 bbls., Nov 23, Dairen; 25 bbls., Nov 23, Shanghai; 10 cs., Nov 19, Bombay
TALC—174 cs., Nov 5, Manila
TRIMENE BASE—2 drs., Nov 25, Antwerp
ULTRAMARINE BLUE—15 bbls., Nov 20, London; 20 kgs., Nov 25, Vera Cruz
ZINC—Oxide, 400 kgs., Nov 15, Rotterdam; 2 kgs., Nov 25, Progreso; 240 bbls., Nov 18, London; 100 bbls., Nov 23, Kobe
White 20 cks., Nov 25, Progreso

IMPORTS AT BALTIMORE

Dec 8 to 15

ACID—Cresylic, 10 drums, Baldwin Universal Co., Inc., Beemsterdijk, Rotterdam
ASPHALTUM—Solid, 112 drums, 22 tons, Thomas Asphalt Products Co., East Side Liverpool
BLOOD—Dried, 1412 bags, 179,072 lbs., H. J. Baker & Bro., West Imboden, Buenos Aires
BONE MEAL—2625 bags, 264,602 lbs., H. J. Baker & Bro., West Imboden, Buenos Aires
CHEMICALS—282 cases, 124,507 lbs., Simon M. Goldsmith, City of Alten, Rotterdam
CHROME ORE—2250 tons, Rhodesian Vanadium Corp., West Cawthon, Beira
CLAY—50 casks, E. H. Shallus Co., Beemsterdijk, Rotterdam
FERRO MANGANESE—630 tons, Crocker Bros., New York, Wheatmore, Liverpool
GUANO—Whale, 5495 bags, to order, West Cawthon, Capetown
IRON ORE—5,000 tons, Bethlehem Steel Corp., City of Dalhart, Whyalla; 11,000 tons, Bethlehem Steel Corp., Firmore, Daiquiri
MANGANESE ORE—8,700 tons, Cottman Co., Cincha, Rio de Janeiro
NITROGENOUS MATERIAL—1,000 bags, Felix Chisholm, Wheatmore, Liverpool
NITROPHOSKA—227 bags Synthetic Products Corp., Beemsterdijk
OIL—Palm, 50 bbls., 2470 lbs., William H. Masson, East Side, Liverpool
OLEO STEARINE—122 tierces, 58,114 lbs., Swift & Co., West Imboden, Buenos Aires

POTASH—Kainit, 12.4%. 607,860 lbs., N. V. Potash Export My., Hillegam, Antwerp; 20%, 278,740 lbs., N. V. Potash Export My., Hillegam, Antwerp; **Muriate**, 50%, 2,325,180 lbs., N. V. Potash Export My., Hillegam, Antwerp; 50%, 1,000 bags, 199,580 lbs., N. V. Potash Export My., Hillegam, Antwerp; 50%, 5,150 bags, 1,027,833 lbs., N. V. Potash Export My., Hillegam, Antwerp; 50%, 2,500 bags, 498,949 lbs., Rukert Bros., Hillegam, Antwerp; 55%, 1500 bags, 299,369 lbs., N. V. Potash Export My., Hillegam, Antwerp; **Sulfate**, 1,000 bags, 199,580 lbs., N. V. Potash Export My., Hillegam, Antwerp; 1,000 bags, 199,580 lbs., Ruckert Bros., Hillegam, Antwerp
QUEBRACHO—Wood, 2,505 bags, 591,435 lbs., Tannin Corporation, West Imboden, Buenos Aires
SEED—Beet, 1 bag, Wiseman & Downs Co Inc., Wheatmore, Liverpool
STARCH—Potato, 250 bags, William H. Masson, Beemsterdijk, Rotterdam

IMPORTS AT NEW ORLEANS

Dec 9 to 16 1927

BONEMEAL—2021 sacks, order, Hamburg
CREOSOTE—8121 tons, American Creosoting Co., Rotterdam
FERRO-MANGANESE—150 tons, order, Liverpool
GUM—Chicle, 189 bales, order, Port Barrios; 588 bales, Wm. Wrigley Co., Belize
MOLASSES—1523278 gals. Dunbar, Molasses Co., Havana; 720,000 gals. Kentucky Alcohol Co., Nuevitas
NAPHTHALENE—1929 bags, order, Antwerp
POTASH—Sulfate, 1500 sacks, order, Havre
NITRATE—500 sacks, order, Havre

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Application date appears with each patent.

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1,651,416.—Viscosity Measuring Instrument. W. C. Sproesser, Bloomfield, N. J. assignor, Westinghouse Lamp Co. Sept. 5, 1923.
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1,651,688.—Reclaiming Waste Lubricating Mineral Oil Containing Soaps by name of sulfuric acid. H. A. Frasch, New York. June 27, 1921.
1,651,733.—Non-Dusting Carbon Pigment by incorporation of waxes. S. E. Shepard and L. W. Eberlain, assignor, Eastman Kodak Co., Rochester, N. Y. Nov. 26, 1926.
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277,400.—Corn Starch Manufacturer Penick & Ford Ltd., Inc., Cedar Rapids, Ia. Apr. 19, 1926.
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277,419.—Liquid Fuels from finely divided coal and heavy mineral oils. F. Lamplough, Hanwell, Middlesex and A. E. Hodgson, London. June 15, 1926.
277,444.—Floor Treating Composition. R. de Wolfe, London. June 24, 1926.
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277,651.—Producing Ozone Siemens & Halske A. G., Berlin. Sept. 8, 1927.
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SOAP AND GLYCERINE MANUFACTURE

A MODERN TREATISE ON THE PRODUCTION OF SOAPS OF ALL KINDS,
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BY E. T. WEBB

DIRECTOR, THE BIDSTON SOAP COMPANY, LTD., MANCHESTER.

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- 449,286.—Causing Reactions Between Gases and Liquids for producing sulphuric acid. Dr. P. Fischler, Trzebinia, Poland. Mar. 10, 1926.
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- 449,051.—Continuous Production of Urea from Ammonia and Carbon Dioxide. Dr. M. Casale, L. Casale and R. Casale, Rapallo, Italy. May 12, 1925.
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- 449,026.—Disinfectant from humic acid. Dr. O. Lowe Beer, Frankfurt. Mar. 30, 1924.
- 449,126.—Mothproofing Medium. I. G. Farbenindustrie A. G. Oct. 6, 1922.

Despite official optimism, expressed in the early summer for quick development of production at the French government's synthetic nitrogen plant at Toulouse, the mediocre results so far obtained gave rise to a heated discussion in the French Senate on November 23, reports Assistant Commercial Attaché Daniel Reagan, Paris.

In unofficial circles, it is maintained that the production costs for the synthetic nitrogen at Toulouse are by far the highest of any of the plants in operation up to the present time, not only in France, but in the other principal producing countries. The protracted period which has been required to begin even a small production at this plant, coupled with these high costs has caused widespread criticism, despite the fact that it is recognized that this installation is designed primarily as a war reserve. The farming element has now joined the political critics in demanding a more efficient administration and operation of this plant, as they still see no signs of enjoying cheaper nitrogenous fertilizers as this factory is now operated.

GERMAN NITROGEN YIELD OVER HALF MILLION TONS

(Special to CHEMICAL MARKETS)
Washington, D. C., Dec. 22—German fixed nitrogen production amounted to 580,000 metric tons for the year ended June 30, 1927, reports Trade Commissioner William T. Daugherty, Berlin. This figure, however, may cover a 13-month period, from May 31, 1926 to June 30, 1927, as the syndicate fixed June 30 as the close of the fertilizer year instead of May 31.

Products were as follows: Synthetic ammonium sulfate, 355,000 metric tons; by-product ammonium sulfate, 60,000 tons; calcium cyanamide, 70,000 tons; calcium nitrate, 60,000; sodium nitrate (synthetic Chilean saltpeter), 15,000; and miscellaneous synthetic nitrates 20,000 tons.

Ammonium sulfate, as the above figures show, was the major product.

Production of 355,000 tons of fixed nitrogen contained in ammonium sulfate is equivalent to approximately 1,775,000 tons of the fertilizer salt. In the period, July, 1926, to June, 1927, inclusive, exports of ammonium sulfate amounted to 451,000 tons, while imports totaled less than 1,000 tons. Germany exported approximately 120,000 tons of ammonium sulfate to Japan, but the trade declined progressively in the first months of 1927. Other important customers for German ammonium sulfate are France, Belgium, the Netherlands, and Spain. The two former are receiving deliveries on reparations account.

The ammonium sulfate exports, representing approximately 90,000 tons of fixed nitrogen, include an unknown amount of coke-plant by-product sulfate. Deducting the exports from the total German synthetic and by-product production of 415,000 tons, it is observed that Germany consumed roughly 325,000 tons of fixed nitrogen in ammonium sulfate.

New installations for handling Alsation potash have been made at Antwerp, Belgium, according to Assistant Trade Commissioner George W. Berkaleu, Brussels. The project was constructed according to plans of the Alsace Potash Society and the resulting construction can accommodate a stock of 150,000 tons of potash salts.

Operating at maximum, speed, 6,000 tons may be loaded and unloaded in eight hours.

Arrivals of shellac in Calcutta have slightly increased, and the supply of American T. N. is sufficient to meet the demand, according to Warren G. Patterson, Calcutta.

LIME MANUFACTURE

(Special to CHEMICAL MARKETS)

Washington, D. C., Dec. 19—Mining methods, introduced during the last few years for mining limestone rock, rotary kilns for the burning operation, and other recent improvements in the manufacture of lime are fully described in a circular entitled "The Manufacture of Lime," recently issued by the Bureau of Standards.

This paper is intended to replace Technologic Paper No. 16 published in 1913, on the properties and uses of lime. Since this report was issued many changes and improvements, such as the two cited above, have been introduced in the industry. Furthermore, in 1913 very little hydrated lime was manufactured, whereas a large amount of lime is marketed in that form today.

In order to gather the information for this new circular, nine typical lime plants were visited in the spring of 1925, each of which employed methods not in use in 1913. The data secured, and now made available through Circular No. 337, include the production of chemical lime, the latest type of gas-fired kilns, the operation of continuous draw kilns and the procurement of limestone.

Copies of this publication (no. 337) may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 45 cents apiece.

The principle obstacle to the sale of American sulfate of alumina in Uruguay is higher prices charged by American manufacturers, according to Commercial Attaché Clarence C. Brooks. Although it is true that a superior quality grading, 17 to 18 per cent, is shipped from the United States, the Uruguayan government which is the largest single consumer, only requires a grading of 15 per cent. Consequently, American manufacturers cannot compete on an equal basis with those of Europe, who offer the lower grade at a lower price.

There is a large paper factory in that country, however, which might be sold upon the better grades. American producers may secure the name of this company upon application to the Chemical Division.

According to Bachi's compilation of index numbers, using the average prices of 1920 as 100, chemical prices in Italy have materially decreased, reports Assistant Commercial Attaché A. A. Osborne, Rome. In October, 1926, the index number was 74.2 as compared with 61.7 in the corresponding month of 1927.

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SYNTHETIC FERTILIZER CONSUMPTION IN POLAND

Complete figures show that Poland's consumption of artificial fertilizers during 1926, although slightly less than in 1925, was still considerably higher than the post-war average, according to Assistant Trade Commissioner Gilbert Redfern, Warsaw. The total fertilizer consumption for 1926 is given as 681,100 metric tons, which compares with 712,700 tons in 1925, 397,400 in 1924, 508,100 in 1923 and 403,700 tons in 1922.

The principal items included in the 1926 consumption of 681,100 tons were; superphosphates, 155,500 metric tons; basic phosphate slag, 138,700 tons; bone meal 8,500 tons; cyanide, 110,600 tons; ammonium sulfate, 18,800 tons; nitrate of soda, 23,900 tons; and potash salts, 220,700 tons.

Domestic production of artificial fertilizers in 1926—from a total of 28 manufacturing establishments—amounted to 612,533 tons; 11 factories producing 160,787 tons of superphosphates, and one factory 117,932 tons of cyanamide. Definite figures are not yet available on production and consumption for 1927, but it is believed that these will show an increase over 1926.

The German Dye Trust is probably the main factor in rare earth chemicals in Germany, centering in the electrolytic processes of Griesheim-Elektron. Griesheim gets cerium from monazite sand and markets it for use in friction lighters. Parallel with this production, Griesheim is identified with beryllium, tungsten, chromium, titanium, magnesium, calcium, sodium and barium. Deutsche Gasgluehlicht Auer Gesellschaft, Berlin, production of thorium salts surrounds its manufacture of gas mantles. Incidentally, however, it has a section producing titanium white. Beyond this its interest in so-called rare earth chemicals ceases.

More than 2,000 buyers and exhibitors from the United States will attend the Leipzig Spring Fair, Leipzig, Germany, according to announcement made by the Fair News Service in this country. It is expected that fully 10,000 exhibits drawn from more than 20 countries will be on display with an attendance at the Fair of over a quarter of a million people.

The Fair next Spring will be held from March 4 to 10 and information regarding it may be obtained from the Leipzig Trade Fair, Inc., 630 Fifth Ave., New York.

NEW FRENCH MOTOR FUEL

France's gasoline problem is going to be solved before long, according to French scientists. There is confidence in the development of synthetic production of alcohol and gasoline and in the power of benzol to improve the quality of motor fuel.

A mixture of one-third each imported gasoline, benzol and alcohol is said by Pierre Dumanois, technical head of the government's bureau seeking a liquid "national fuel," to have produced excellent results. His report says this mixture gives more power, quicker acceleration and is better for a motor than straight gasoline.

Production of cheap alcohol is greatly hampered by high taxation and government control of the supply, including price-fixing, but scientists say there is no doubt the country can produce vast quantities of cheap alcohol whenever the government frees the industry from restraint.

Benzol already is being produced in increasing quantities as a by-product.

This mixture is not regarded as a complete solution, but many apparently successful experiments are said to promise that eventually there will be found one or more synthetic processes that may entirely free France from "foreign tribute," as is called the necessity for importing gasoline.

I. C. I. ESTABLISHES RESEARCH COUNCIL

Imperial Chemical Industries, Ltd. has announced the establishment of a Research Council, whose purpose is to provide a co-ordinate body for determining lines of general industrial research, reports Trade Commissioner Homer S. Fox, London. The main function of the Research Council will be advisory, and it will act as a clearing house for new chemical ideas and policies. The Council will also provide close connections between the chemical industry and the universities, and promote both pure or academic research and also long distance practical industrial research. The president of the council is understood to be Sir Alfred Mond, Chairman of Imperial Chemical Industries, Ltd.

Glidden Co., Cleveland, during year ended Oct. 31, made a reduction of approximately \$1,425,000 in outstanding debt, according to Adrian D. Joyce, president. It is expected that by the end of fiscal year of 1928 all miscellaneous bond issues of subsidiary companies will be retired, leaving indebtedness of only \$2,700,000, represented by bond issue of parent company.

JAPANESE IMPORTS OF SULFATE AMMONIA LOWER (Special to CHEMICAL MARKETS)

Tokyo, Japan, Nov. 25—Sulfate of ammonia imported into Japan from the beginning of January 1927 to the end of October totaled 213,000 tons. It is estimated that 260,000 tons will have been brought here before the end of this year. This is a decline of 27,000 tons from last year's imports amounting to 287,000 tons. Home production increased 20,000 tons over last year, due to extension of plant equipment by the Japan Nitrogen Co. and the Electro-Chemical Company. Sulfate of ammonium as by-product of gas coke also increased about 7,000 tons this year. The balance brought to 1926 from the preceding year was 30,000 tons but that of this year 65,000 tons and the total supply of this year is 35,000 tons more than last year. The total of this year's imports, domestic production and the balance is 482,000 tons. Continued surplus of supply has featured the ammonium sulfate business so far this year. The consumption during the first half of this year was unfavorable, due to the virtual suspension of demand for one month following the spring panic.

Swedish production of pine tar in 1925 amounted to 7,376 metric tons, valued at 1,003,000 crowns, which compares with 6,906 metric tons, valued at 1,037,000 crowns, in 1924. Total exports in 1926 were 6,385,885 kilos, valued at 1,419,479 crowns, which compares with 6,961,078 kilos, valued at 1,564,283 crowns, in 1925. Exports for the first nine months of 1927 amounted to 4,034,875 kilos which compares with 4,792,077 kilos for the corresponding period of 1926.

Stocks of rayon held in bonded warehouses on October 30, 1927, totaled 660,444 pounds of waste and yarns made from waste, valued at \$317,607, and 1,673,899 pounds of thread valued at \$1,082,177 according to a statistical report by the Textile Division, Department of Commerce.

Stocks on September 30 this year were 827,842 pounds of waste and yarns made from waste value at \$357,121, and 1,875,096 pounds of thread valued at \$1,235,565; on October 31, 1926, they were 226,912 pounds of waste valued at \$240,527 and 1,878,507 pounds of thread valued at \$1,694,879.

The Buenos Aires municipal regulation prohibiting the sale or use of paint manufactured with a lead base has been declared unconstitutional by the Court of Criminal Appeal, reports Assistant Trade Commissioner Mason F. Ford, Buenos Aires.

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KUHLMANN NOW MAKES VAT DYES IN FRANCE

An important step in the French dyestuffs trade, particularly in its relation to Germany, has been taken through the manufacture of vat dyes, according to Assistant Commercial Attache D. J. Reagan, Paris.

These dyes are being manufactured at the Kuhlmann company's Villers-Saint-Paul plant as part of its development program, which has included the introduction of nine intermediate products, most important among which are anthraquinone, the basis for dizarine and vat dyes, and beta-aminoanthraquinone, the basis for solanthrene dyes.

During the last year, ninety-five new types of dyes have been perfected by this company at this plant and at its plant at Ooissel about forty different types were produced. These dyestuffs belong to various groups, but of particular importance are the bromate indigo series and the solanthrene dyes for which the French consumers have been dependent upon foreign sources, particularly Germany.

The dyestuffs output by this company in 1926 totaled 9,900 metric tons, as compared with 9,000 metric tons in 1925. This represents 65 per cent of the total output in France for 1926, exclusive of the 1,200 tons produced by the Swiss-owned plant at St. Fons and the relatively small amounts produced by the individual textile manufacturers for their own needs.

Export returns of sienna from Leghorn, Italy, to the United States for quarter ending September 30, 1927 indicate a value of \$18,805, reports Consul Jesse B. Jackson, Leghorn. This was an increase in value of \$3,000 over the preceding quarter and of \$1,000 over the corresponding period of 1926.

The price range during the third quarter of 1927 was from \$68.30 to \$120.21 per metric ton as against \$44.19 to \$121.54 per metric ton for the second quarter.

Goldfield Consolidated Mines Co. has taken an option on quicksilver claims in Gold Circle district, Nevada, and will begin mining operations. Option is said to have carried a purchase price of \$35,000.

The "Glasgow," a Japanese steamer, in leaving Fowey for Philadelphia with a cargo of china clay, went on rocks at the entrance to the harbor when the towline parted.

CZECHOSLOVAK COAL TARS

Czechoslovak production of coal tar amounts to over 90,000 metric tons annually, between one-half and two-thirds of which is consumed locally. Imports in 1926 amounted to a little over 7,000 metric tons, almost entirely bituminous. Ten plants are engaged in the manufacture of lignite coal tar, while numerous gas plants and some 12 coke ovens produce bituminous coal tar.

One firm at Moravska Ostrava takes the total output of the principal lignite coal tar producers and puts out a great variety of by-products. This company is owned jointly by the principal coal tar producers and is responsible for about 80 per cent of the country's total output, or about 75,000 metric tons annually.

Imported bituminous coal tar and the production of local gas plants are for the most part handled by "Teerag", a Prague firm.

Oil deposits at Geran, Giandzhinsk County, Soviet Russia, which are at present idle, will be re-established according to a Moscow trade paper. The deposits of oil are naphtha bearing and a by-products obtained may be for manufacturing high grade back lacquer suitable for the insulation of electric cables. It is planned to begin operations with eight test derricks, and a large chemical plant will be erected at an estimated cost of \$1,000,000 for refining the oil and for production of the by-products.

As a result of improved conditions in the alcohol industry the American Solvents and Chemical Corp. is showing a decided improvement in earnings, says the "Chicago Journal of Commerce". Both gross and net earnings of its principal producing subsidiary in the current quarter are running larger than for any similar period in its history. Volume of business should be further increased as cold weather sets in and there is a greater demand for anti-freeze solutions. The company also has increased booking for 1928.

E. I. du Pont de Nemours & Co., Wilmington, Paint and Varnish Division, has awarded a building contract for a two-story addition to its Flint, Mich. plant, estimated to cost in excess of \$40,000, with equipment.

Western Industries Co., San Francisco, will build a new five-story plant in the vicinity of Stege, Cal., estimated to cost in excess of \$200,000, with machinery.

FERTILIZER INDUSTRY DORMANT IN BRAZIL

According to a recent communication from Trade Commissioner Gregory H. Eickhoff, Rio de Janeiro, it is stated that there is no new fertilizer plant either in project or in operation in Brazil. The old and only recorded plant is Fabrica de Adubos Curto, Oswaldo Cruz, Federal District, and it has no intention, at present, of increasing its output which amounts to 1,500 tons per annum. The Sao Paulo district is the heaviest fertilizer region and it is extremely doubtful whether any concern would locate in Rio de Janeiro to subject themselves to the very heavy freight rates necessary to deliver their product to the consuming center. Copies of the regulations for sale of fertilizers and chemical preparations as passed by the Brazilian Congress on September 13, of this year are available to accredited firms and individuals upon application to the Chemical Division.

Texas Gulf Sulphur Co. has been making a thorough investigation of the sulfur possibilities of the Boling field in connection with which a lease agreement was recently entered into with the Gulf Oil Corp. Drilling of more than 30 wells on the dome shows that the sulfur deposits cover an area of at least 1,200 acres. It is possible that these may be eventually found to cover some 1,800 acres. Core test of the wells so far conducted reveal a sulfur content formation varying from 10% to 65%, while the general average is in the neighborhood of 30%. The sulfur formation is 200 ft. thick in some places and geologists expect a possible minimum recovery of 30,000,000 tons and a maximum of around 80,000,000 tons. Sulfur is being found at a sub-surface depth ranging from 500 ft. to 1,300 ft.

Brame's Chemical Co., Asheboro, N. C., recently organized to manufacture chemical and drug specialties, has plans for the immediate erection of a new plant in that city. It will be one-story, 50 x 125 feet, estimated to cost close to \$21,000. It is understood that Arthur Ross and W. J. Armfield, Jr., Asheboro, will head the new company.

Neville Chemical Co., Pittsburgh, has authorized the construction of a new one-story plant in the Neville Island district, to cost in excess of \$45,000 with equipment.



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(Continued from Page 886)

cess; whereas the fellow who follows is probably forced to follow to keep in the running. I do not believe that a general policy applicable to all cases, with equal wisdom, can be formulated."

"The proposed editorial as submitted by you has just been received here in Washington," writes Dr. William J. Hale "and your question is in itself perfectly innocuous; it envisages no constructive train of thought. The field of endeavor here comprehended has little if any bearing upon production and sales. It is primarily a problem of research and finance in the light of future development. Too much money already has been wasted on the part of industrial leaders, and in good faith, by following the suggestions and evanescent discoveries of pseudo research men. It were better far to permit every discovery to season for a year or more before announcing the same to the scientific world."

"When real chemical discoveries have been made, it requires the combined efforts of chemists and engineers for a not inconsiderable period of time in order to install the necessary operations upon a practical and workable scale. None but morons would fail to incorporate such in their operations. Personally I think the question is entirely inapt and more or less asinine."

"A flat "Yes" or "No" will do for an answer. Each problem is a case in itself. The progressive company should have for its policy a full investigation of each problem or process and attending market condition," is the opinion of Robert B. Lebo of the Chemical Products Division of Standard Oil Company of N. J.

Called Keynote of Corporate Management

From C. F. Hutchings, General Manager of North American Chemical Company, comes the expression of opinion that "Frozen Development" calls into discussion the key-stone of corporate management. It is obvious that every item of development must be considered on its own particular merits, but to avoid lengthy discussion of a very large subject, my own opinion is to the effect that, with medium sized corporations where new developments ordinarily run into expenditures of perhaps \$100,000 or less, an enterprising manager has a natural antipathy to frozen development and a real worth while new undertaking will not remain frozen very long in his factory."

"The following remarks may illustrate my meaning. Technical view point: Any manufacturing chemist knows that laboratory results and dicta must pass a commercial scale test to determine their true value and the time necessary for such trial will likely run into as much as two years. The very fact of these long time tests and the comparatively large scale of equipment necessary to prove whether or not true value exists, is the reason for the well known conservatism of chemical executives. It is necessary for the research department to show very definite points of merit

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even to induce sufficient expenditure of money for a trial. However, when a practical try-out proves real merit, I believe there are few seasoned executives who would hesitate to make immediate use of the improved process. Too much time and money has already been spent to make pigeon-holing or delay a rational act."

"Commercial aspect: If the improvement increases profits it cannot be adopted too quickly. The executive who awaits competition to spur him on to the improvement of his processes is sadly lacking. With the requirement of perhaps two years to try out a new improvement if the situation as it relates to competition can be discounted two years in advance, why forego the extra profits during that period by pigeon-holing the improvement. In this connection we should not forget that operating an up-to-the-minute plant induces a sublime peace of mind that pervades the entire personnel of the company, from the highest to the lowest,—a hidden asset of no mean value. To pigeon-hole an improvement means putting a stop to progress in that particular department, whereas if promptly put to work still further improvements are sure to be discovered; thus manufacturing methods are kept moving forward in a constant progression of betterment."

Leadership All-important

"I consider it important to keep in the lead," writes Paul I. Merrill, R. T. Vanderbilt Company, "whether the follower is the sheriff or a competitor in business. While it may always be desirable to have some improvements in reserve to be used when necessary, it is better to make improvements and even to scrap equipment before being actually forced to do so by manufacturing conditions or competitive sales."

K. B. Lacy, Engineer of Van Schaack Bros. Chemical Works says "Will the profits from the new process, after deducting the usual items such as maintenance, interest on investment and amount written off per period, show an increase over the same figure for the old method? If the process does show increased profits, change is undoubtedly sound, provided the cost of scrapping the old process (if this is done) is considered. If it shows no marked increase, the change may still be of advantage if economic conditions have been correctly balanced and an increase of basic raw material costs is found imminent."

"It seems wiser to meet competition with a new and more efficient process as long as the above balanced conditions hold good."

From an alcohol producers standpoint comes this opinion by Frank C. Lowry of Lowry and Company. "The review is complete and accurate. Waiting until changes in a plant are forced by competition means that the company is always a follower. Such a program is generally the result of a "dividends first" policy."

Of the opinion that "Frozen Development" simmers down

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to a question of whether the organization is willing to be a leader or content to be a follower in their particular line," H. E. Woodworth of California Spray Chemical Company continues, "In our own sphere we have no hesitancy in scrapping equipment or discontinuing lines in which we have lost confidence or which we feel are superseded by more modern, more efficient, or more economical materials, whether the new development originates from our competition or from our own research laboratory. In other words, our research organization governs production and sales."

Thomas F. Meehan of James Good, Inc., believes that "It is both unfashionable and unprofitable to be contentedly on the deal level. He who does not keep abreast of the procession or ahead of it, must of necessity drop out or be a laggard. Frozen developments, like frozen assets, are very uncertain "reeds" upon which to depend in emergencies. Success will only woo those who are ready and willing to step out in front of the procession."

Attacking the problem from the angle of both the young chemist and the executive, R. W. Cornelison of Peerless Color Company writes that "Actual experience has convinced me there are two sides to the question. I have been the young, interested and intensely enthusiastic chemist, held up by the bit and bridle and prevented from doing things which I knew, as I supposed, ought to have been done; and many of them ought, too. I have been the manager holding the reins and conscious of the unsatisfied enthusiasm and spirit of able research chemists."

"My sympathy is with the enthusiastic chemist; yet I must admit that frequently conditions, which cannot be disclosed, form valid reasons for seeming inertia. Individual cases must be treated separately and no hard and fast "plank in the company's platform" can be adopted. Your term, "Frozen Development", may in some cases be unjustly applied. I shall not attempt to estimate the relative number cases."

CAUSTIC POISON ACT REGULATIONS

(Continued from Page 888)

the samples is completed, if no violation of the Act is detected, the chief of the station shall send a notice of release to the importer and a copy of this notice to the collector of customs for his information.

(g) Violation:

(i) If a violation of the Federal Caustic Poison Act is disclosed, the chief of the station shall send to the importer due notice of the nature of the violation and of the time and place where evidence may be presented, showing that the containers should not be refused admission. At the same time similar notice regarding detention of the containers shall be sent to the collector, requesting him to refuse delivery thereof or to require their return to customs custody if by any chance the

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containers were released without the bond referred to in paragraph (c) of this regulation being given. The time allowed the importer for representations regarding the shipment may be extended at his request for a reasonable period to permit him to secure such evidence.

(2) If the importer does not reply to the notice of hearing in person or by letter within the time allowed on the notice, a second notice, marked "second and last notice", shall be sent at once by the chief of the station, advising him that failure to reply will cause definite recommendation to the collector that containers be refused admission and that the containers be exported within three months under customs supervision.

Rejected Containers:

(3) In all cases where the containers are to be refused admission, the chief of the station within one day after hearing, or if the importer does not appear or reply within three days after second notice, shall notify the collector in duplicate accordingly.

(4) Not later than one day after receipt of this notice the collector shall sign and transmit to the importer one of the copies, which shall serve as notification to the importer that the containers must be exported under customs supervision within three months from such date, as provided by law; the other notice shall be retained as office record and later returned as a report to the chief of the station. In all cases the importer shall return his notice to the collector, properly certified as to the information required, as the form provides.

Containers to be Relabeled:

(5) If containers are to be released after relabeling, a notice shall be sent by the chief of station direct to the importer, a carbon copy being sent to the collector. This notice must state specifically the conditions to be performed, so as to bring the performance thereof under the provisions of the customs bonds on consumption and warehouse entries, these bonds including provisions requiring compliance with all of the requirements of the Federal Caustic Poison Act and all regulations and instructions issued thereunder. The notice will also state the officer to be notified by the importer when the containers are ready for inspection.

(6) The importer must return the notice to the collector or chief of station, as designated, with the certificate therein filled out, stating that he has complied with the prescribed conditions and that the containers are ready for inspection at the place named.

(7) This notice will be delivered to the inspection officer, who, after inspection, will indorse the result thereof on the back of the notice and return the same to the collector or to the chief of station, as the case may be.

(8) When the conditions to be complied with are under the supervision of the chief of station, and these conditions have been fully met, he shall release the con-

(Continued on Page 938)

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2—3'x16' and 2—4'x30' American Process Dryers.
 6—50" dia. Cast Iron Rectifying Columns.
 30—Storage Tanks, from 50 to 20,000 gallons.
 24—Filter Presses, 18" to 42", Plate & Frame, Recessed,
 Open and Closed Delivery, All Standard Makes.
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COMPLETE CATALOG ON REQUEST

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Send us a List of your Surplus Machinery.



TRIANGLE BRAND
Nichols Copper Co.
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You owe it to yourself

to let us quote you before you contract for 1928.

Attractive Prices for Immediate Delivery.

SODIUM SULPHIDE

30° -- 32° CRYSTALS

Packed in Gum Wood Barrels Paraffine Lined

You will also find it to your advantage to communicate with us regarding the following products:

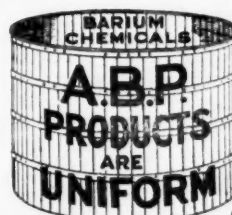
Barium Carbonate	Sodium Sulphide
Barium Chloride	(30 deg.-32 deg. crystals)
Barium Sulphide	Iron Oxide
(Black Ash)	(Venetian Red)
	Brick Scum Preventor

When you deal with us you are dealing directly with the manufacturer

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COMPANY**

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ALCOHOL!

Pure, Special and
Completely Denatured

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NEW ORLEANS, LA.

Antimony Salt

Powder form 66%
(TARTAR EMETIC SUBSTITUTE)
Our own manufacture



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HOWARD B. BISHOP, President
Manufacturing Chemists
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Cable Address—Fluorine, Brooklyn
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In the Year
1755

Benjamin Franklin said:
"Think of three things—
whence you came, where
you are going, and to
whom you must account"



From whatever
point you may
come, there is a
warm welcome
awaiting you at
The Benjamin
Franklin. Where-
ever you are
going, we can
supply you with
helpful, interest-
ing hotel and
travel informa-
tion.

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BENJAMIN FRANKLIN

CHESTNUT & NINTH ST.
PHILADELPHIA

HORACE LELAND WIGGINS, Managing Director

1200 Rooms
Each With Bath



RATES:
\$4 Upward

OUTSTANDING EVENTS OF 1927

IN THE CHEMICAL INDUSTRY

(Continued from Page 883)

Norwegian Hydro-Electric Corp. issues \$20,000,000 gold bonds in this country.

DECEMBER

Commissioner Doran announces new denatured alcohol formulas for use in manufacture of lacquers and solvents.

American Association of Textile Chemists and Colorists holds seventh annual meeting in New York.

CHEMICAL MARKETS announces new editorial program.

I. G. and Kuhlman interests sign Franco-German dyestuffs agreement. Imperial Chemical Industries, representing British interests, expected to follow suit.

Tacoma Electrochemical Co., subsidiary to Pennsylvania Salt Co., incorporated to manufacture liquid chlorine.

Miner-Edgar Co. goes into hands of receivers.

Insecticide and Disinfectant Manufacturers' Association holds annual convention in New York.

Synthetic Organic Chemical Manufacturers' Association holds annual meeting in New York.

Chemical Advisory Committee to the Department of Commerce holds annual conference in Washington.

Prof. Moses Gomberg, University of Michigan, receives Chandler Medal.

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STEARIC ACID

RED OIL

All Grades

Saponified and Distilled
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Potassium Acetate, Rochelle Salt,
Ammonium & Potassium Oxalate,
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ACID PYROPHOSPHATE OF SODA FOR BAKING POWDER FACTORIES
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Extra light, pharmaceutical

Blood Albumen

Light, brown and black

Sodium Bisulphite

White 60/62%

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Triple, refined, white

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Crude and neutral

Tannic Acid

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Industrial Alcohol—where and when you want it in a hurry! Our warehouses and distributors at strategic points insure immediate delivery—and the care we take with our containers—be they tank cars or drums—insures industrial alcohol as you want it.

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P. O. Box 424
Lancaster, Pa.

Rolls Chemical Co.
483 Ellicott Sq. Bldg.
Buffalo, N. Y.
H. H. Reed
549 W. Washington St.
Chicago, Ill.
A. H. Selling
527 Hudson St.
New York City
N. S. Wilson & Sons, Inc.
74 W. 2nd St.
Boston, Mass.

W. P. Williams Co.
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Pittsburgh, Pa.
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Alcohol

Denatured
Alcohol in all
Formulae.



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John D. Lewis

Established 1866

Manufacturer of

TANNIC ACID
(all grades)

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ANTIMONY LACTATE

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U. S. P.

CRESOL

U. S. P.



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HOLBROOK, MASS. and ST. LOUIS, MO.

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Reflect Quality Contents


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Sales Offices: New York, Dallas, Charlotte, Chicago, Denver, Louisville, Cleveland, Detroit, Houston, Hutchinson, Little Rock, Charleston

Affiliated Company: THE ADAMS BAG COMPANY, Chagrin Falls, Ohio
Manufacturers of NEW EBBESST Paper Bags

CAUSTIC POISON ACT REGULATIONS

(Continued from Page 934)

tainers to the importer, sending a copy of the notice of release to the collector for his information.

If containers have not been properly relabeled within the period allowed, the chief of station shall immediately give notice in duplicate to the collector of the results of inspection. The collector shall sign and immediately transmit one copy of the notice to the importer and proceed in the usual manner.

(9) If the containers are detained, subject to relabeling to be performed under the collector's supervision, the collector, as soon as relabeling is accomplished, will notify the importer that the containers are released.

(10) If containers have not been properly relabeled within the period allowed, their sale after labeling as required by the Act or other disposition must be effected by the collector.

(11) When final action has been taken on containers which have been refused admission, sold or otherwise disposed of as provided for by the Act or which have been relabeled under the collector's supervision, the collector shall send to the chief of station a notice of such final action, giving the date and disposition.

(12) When relabeling is allowed the importer must furnish satisfactory evidence as to the identity of the containers before release is given. The relabeling must be done at a stated place and apart from other containers of a similar nature.

(13) When containers are shipped to another port for relabeling or exportation, they must be shipped under customs' carrier's manifest, in the same manner as shipments in bond.

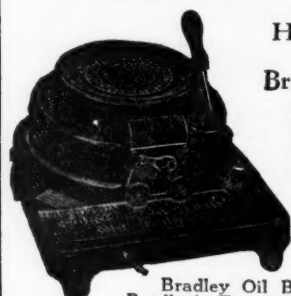
(14) Collectors of customs will perform the inspection service whenever containers are to be exported, sold or otherwise disposed of, and in other cases when there is no officer of the station available.

(15) Collectors of customs and representatives of the station will confer and arrange the apportionment of the inspection service according to local conditions. Officers of the station will, whenever feasible, perform the inspection service in connection with relabeling.

(h) Penalties:

(1) In case of failure to comply with the instructions or recommendations of the chief of station as to conditions under which containers may be disposed of, the collector shall notify the chief of station in all cases coming to his attention within three days after inspection or after the expiration of the three months allowed by law if no action is taken.

(2) The chief of station, upon receipt of the above described notice, and in all cases of failure to meet the conditions imposed in order to comply with the pro-



HERE YOU HAVE IT The Latest Model Bradley Stencil Machine

Graduated Table, Handle Adjustable to two positions, Rapid Stroke and Other Features. Cuts $\frac{1}{2}$ " and $\frac{1}{4}$ " Letters.

Our GIANT MACHINES Cut $1\frac{1}{4}$ " and $1\frac{1}{2}$ " Letters for Export Shipments.

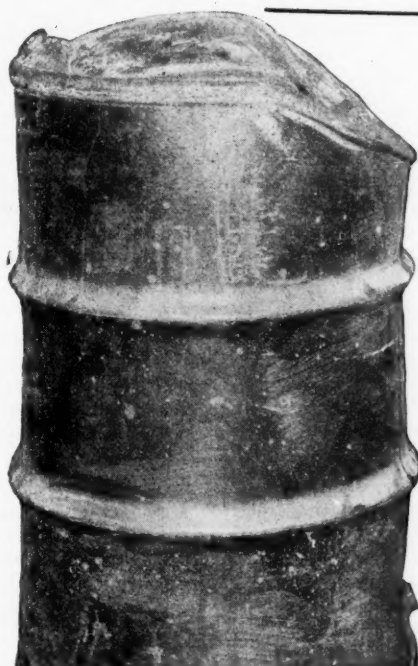
Bradley Oil Board and Stencil Papers.
Bradley's Two-In-One Stencil and Marking Ink.
The Bradley Ball Stencil and Marking Pot.

Write for Samples and Prices

A. J. BRADLEY MFG. CO.

102 BEEKMAN ST.,

NEW YORK



Dropped— Not 4 Feet, But 6— Not Once, But 6 Times

Section 9 of I. C. C. Shipping Container Specification No. 5 requires that the barrel or drum be filled with water to 98% of its capacity and dropped diagonally on its chime from a height of 4 feet.

The Hackney Steel Drum shown in this picture was filled with water as required, and dropped from a height of 6 feet instead of 4—not once, but 6 times directly upon its chime and 2-inch plug.

Notice how this terrific abuse has distorted the chime. But even after the sixth drop the plug was unhurt and there was not one single sign of leakage.

This clearly shows the true worth of Hackney Steel Drums. Their brazed chime construction and integral reinforcing hoops give them the rigid strength that defies rough usage. Their patented Raised Openings—strongly brazed into the head—make them leakproof.

We will be glad to send you complete information on this or any other Hackney product. Why not drop us a card today?

PRESSED STEEL TANK COMPANY

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Hackney

MILWAUKEE

1329 Vanderbilt
Concourse Bldg.
New York City

5729 Greenfield Ave.
Milwaukee, Wis.

HEADLOCK NESTING CANS

(5 to 55 Gallons Capacity)

Just right for moving stock, such as liquids, around the factory



Black — Galvanized — Tinned

No Spilling—No wasting of materials
No evaporation of contents
Water-tight and Indestructible
Suitable for any liquid, paste or powder
Easily cleaned—Quickly opened or closed
Interchangeable Lid

An exceptionally strong Shipping Container
Will stand rough handling—No casing required
Will nest for return shipment

Capacity	Diam.	Height	Weight	Price BLACK
5 gals.	12½"	13"	19 lbs.	\$1.75
10 gals.	14½"	26"	27 lbs.	2.25
20 gals.	20 "	26"	42 lbs.	4.50
30 gals.	21 "	34"	65 lbs.	6.00
55 gals.	25 "	35"	80 lbs.	7.00

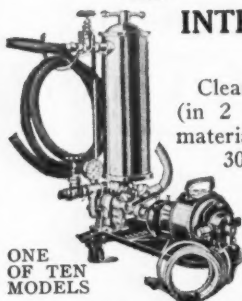
Prices of Galvanized and Tinned Nesting Cans on Request

John Trageser Steam Copper Works

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INTERNAL PRESSURE FILTER



Cleans more easily and quickly, (in 2 minutes) and filters more material **without cleaning** (at up to 300 gallons per hour) than any filter of its size or price.

ONE OF TEN MODELS

Other models from \$8 to \$800

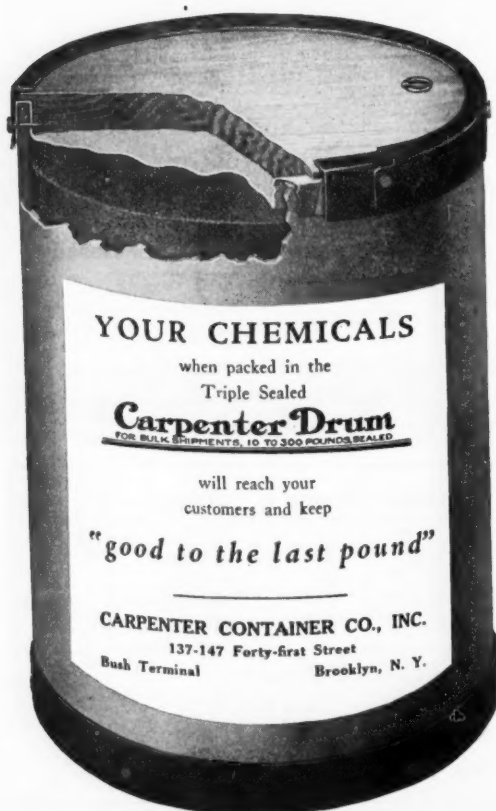
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Is saving hundreds of users valuable time and expense because of its **speed, simplicity and portability**. Operates from any light socket, saving installation expense.

THEY SERVE BETTER LAST LONGER COST LESS

ALSOP
Hy-Speed Machines
ENGINEERING COMPANY
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YOUR CHEMICALS

when packed in the Triple Sealed

Carpenter Drum
FOR BULK SHIPMENTS, 10 TO 300 POUNDS SEALED

will reach your customers and keep

"good to the last pound"

CARPENTER CONTAINER CO., INC.
137-147 Forty-first Street
Bush Terminal Brooklyn, N. Y.

visions of the Federal Caustic Poison Act coming directly under his supervision, shall transmit to the collector of customs such evidence as he may have at hand tending to indicate the importer's liability and make a recommendation accordingly.

(3) The collector, within three days of the receipt of this recommendation whether favorable or otherwise, shall notify the importer that, the legal period of three months for exportation or relabeling having expired, action will be taken within 30 days to enforce the terms of the bond.

(i) Nonlaboratory Ports:

(1) At ports of entry where there is no station of the Food, Drug and Insecticide Administration, the collector or deputy, on the day when the first notice of expected shipment of containers is received, either by invoice or entry, shall notify the chief of station in whose territory the port is located.

(2) On the day of receipt of such notice the chief of station shall mail to the collector appropriate notice, if no sample is desired. This notice serves as an equivalent to stamping the invoices at station ports with the legend "No sample desired, Food, Drug and Insecticide Administration, U. S. Department of Agriculture, per (Initials of inspecting officer)."

(3) If samples are desired, the chief of station shall immediately notify the collector.

(4) The collector at once shall forward samples, accompanied by description of shipment.

(5) When samples are desired from each shipment of containers, the chief of station shall furnish to collector and deputies at ports within the station's territory a list of such containers indicating the size of sample necessary. Samples should then be sent promptly on arrival of containers without awaiting special request.

(6) In all other particulars the procedure shall be the same at non-laboratory ports as at laboratory ports, except that the time consumed in delivery of notices by mail shall be allowed for.

(j) The chief of station shall be deemed a customs officer in enforcing import regulations.

Regulation XI: The Federal Caustic Poison Act shall be enforced by the Food, Drug and Insecticide Administration, Department of Agriculture.

The Rio Tinto pyrites mines in the province of Huelva, Spain, are producing some 7,000 tons of ore daily, 5,000 of which are shipped, 1,000 smelted and 1,000 bleached for later conversion into metallic copper, according to Consul H. Playter, Seville.

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Allowed.



"LIGHTNIN" PORTABLE MIXERS

All Sizes — Any Capacity
Less Machinery—Better Mixing
FOR ALL FLUID PRODUCTS
THOUSANDS IN DAILY USE

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ADJUSTS TO ALL ANGLES
SHAFT IS TELESCOPIC
Write for Catalog M

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AND BEST

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Rate—All classifications, \$1.00 an issue for 20 words or less, additional words, 5c each, per issue.

Payment—Must accompany order, add 10c if replies are to be forwarded.

Address "Wants & Offers"
CHEMICAL MARKETS
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Business Opportunities

CARBONATE OF AMMONIA—Well known "Gloria" Brand offered for export to merchants and direct consumers. References: The Bankverein für Nordwestdeutschland A. G., Bremen, or the Deutsche Bank, Filiale Bremen, Bremen. Address: Hagens, Anthony & Co., Frischhafen 1, Bremen, Germany.

If you manufacture chemical specialties and would be interested in Southern Ohio representation address Box 768, CHEMICAL MARKETS.

SALES AGENT OR MANUFACTURERS REPRESENTATIVE. A large manufacturing company with National Distribution of its products, accomplished by direct and jobber representation, is in position to promote sales of heavy, semi-heavy and fine chemicals. Inquiries are solicited from manufacturers who wish to enlarge their markets or to open new territories. Box 758 CHEMICAL MARKETS.

CHINA CLAY COMPANY, now operating best located large deposit in South desires capital for expansion. Will sell outright or controlling or part interest. Box 765 CHEMICAL MARKETS.

ESTABLISHED CHEMICAL MANUFACTURING CONCERN with excess equipment available will consider purchase suitable processes or will manufacture on mutually profitable arrangement. Box 760 CHEMICAL MARKETS.

Situation Wanted

CHEMICAL ENGINEER experienced in research and in design and operation of aniline color plants, desires position. Box 766 CHEMICAL MARKETS.

CHEMICAL MAN—desires connection as a sales executive or salesman with chemical manufacturing concern. Young (35) aggressive; 20 years experience with leading factors in the trade. Box 757 CHEMICAL MARKETS.

I have been with a large woolen mill for twenty years as superintendent and general manager, and have sold a good part of its output. I am a University graduate in chemistry, 44 years old, and would like to make a selling connection, with a chemical house. I am a man of character and ability. Will consider only such offers as show possibilities of handsome returns. Correspondence invited. Box 762, CHEMICAL MARKETS.

GERMAN-ENGLISH CORRESPONDENT. Experience in chemical business; knows bookkeeping and typing. Position should have prospects for future. Salary secondary. Adolf, 494 Belmont Ave., Newark, N. J.

Help Wanted

STENOGRAPHER—young lady wanted with some knowledge of chemistry. Reply stating training, experience and references. BOX 755, CHEMICAL MARKETS.

SALESMEN with following among glycerin consumers wanted. An interesting proposition will be presented to the proper men. Advertiser just commencing operations in this field. Reply fully stating experience in confidence. Box 763, CHEMICAL MARKETS.

SALESMEN—for New York City and representatives for other cities for products going to following industries; toilet preparations, textiles, patent-medicine, flavoring extracts, tobacco, inks, garages, etc. To men with following in any of the above lines an attractive proposition is waiting. Box 767, CHEMICAL MARKETS.

WANTED: Thoroughly experienced plant executive for production of aniline azo dyes and intermediates on a large scale. Permanent connection with opportunity for development. Submit qualifications as well as previous experience, as well as salary wanted. All replies treated in absolute confidence. BOX 729, CHEMICAL MARKETS.

WANTED—Chemist with experience in laboratory, research and plant work, essential oils. Good opportunity for right man. Box 769 CHEMICAL MARKETS.

A prominent manufacturer desires to get in touch with an engineer or chemist who is familiar with the process of subliming Iodine. BOX 718, CHEMICAL MARKETS.

Raw Materials

CRUDE KAOLIN FOR SALE—About 300 tons Selected High Grade Kaolin in lump form. Immediate shipment from Shuler, So. Carolina. Wire or write Dixiana Clay Company, 53 West Jackson Blvd., Chicago, Ill.

ROSIN—wanted, raw grade, packed in barrels, send samples and quotations. Address John D. Roupas, Patras, Greece—Cables, Roupas Patras A. B. C. 5th Edition.

FOR SALE—Rare Minerals containing Calcium, Rubidium, Hafnium, Yttrium, Lithium, Rare Metals Pure, Barium, Beryllium, Calcium, Cerium, Lithium, Osmium, Potassium, Tantalum, Titanium, Vanadium, Zirconium. Box 1304, 25 Dey Street, New York City.

MISCELLANEOUS

WANTED—CHEMICAL MARKETS, Vol. 19. No. 4, 8, 10, 12, 16, 18, 20, 22, 24, 26, 28, 30, 32, 1926 issues. Library of Congress, Washington, D. C.

WANTED—A second hand Polariscope complete with case, etc. for general chemical work such as for Carbohydrates. Must be in first class condition, late type and adapted for socket connection. Box 770 CHEMICAL MARKETS.

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SALES DEPARTMENT

Local Market Conditions

CHICAGO

General business conditions in the Chicago district are good and much the same is the case in the chemical business proper. Interest of the trade centers in the movement of alcohol, stearic acid and various gums. There is of course the usual seasonal interest in the volume of contracts over 1928 and this has served to lessen the interest in spot transactions as a result of which there have not been any price changes of importance. Collections are fair.

BOSTON

Conditions in the chemical industry in New England are described as fair for this season of the year. In most cases competition is keen for what business there is in sight, this being particularly true of those materials which find usage in the textile trade. There have been no important price changes in this territory during the period under review and all are particularly interested in the annual contract business which is now being consummated for heavy chemicals. There is no outstanding item of interest from the angle of movement. Collections are good.

DETROIT

Based on the appearance of the new Ford car on the market business has been on the upward turn since and for the whole month of December can easily be described as good. This condition has naturally reflected itself in the chemical market. There have not been any important changes in chemicals either as to price or movement, with interest centered on 1928 contract business. Collections are very good.

KANSAS CITY

Business in the middle-West and South-West is slowing down somewhat as is customary in anticipation of the holidays and inventory. The weather with one or two brief exceptions, has remained mild and while alcohol has been moving quite freely and steadily the demand for glycerin has not been so active. Contract buyers seem to be giving reasonable consideration to new entries for 1928. Collections are only fair.

Massachusetts

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Seaboard Chemical Co.
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Franco-American Chemical Wks.
Amyl Acetate Pyroxylin Solutions

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Glauber Salts Bisulphite Soda

Penn Chemical Works
Lye

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Warehouse stocks in the
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New York

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HEADQUARTERS

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RAW MATERIALS
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DANITRA BRAND
Double Refined
SALTPETRE
and
NITRATE of SODA
U.S.P.

Manufactured by
DAVIES NITRATE CO., INC.
57-59 Commerce St., Brooklyn, N. Y.

Local Market Conditions

ST. LOUIS

Fair conditions prevail throughout the chemical industry in the St. Louis territory. Spot business is of course, tapering off due to the proximity of the inventory period. There have been no important price changes in the past several weeks nor has there been any outstanding movement as the entire trade is concentrating on the execution of 1928 contracts.

NEWARK

The year is closing in fairly good shape in the Northern New Jersey district and a great many industries feel that the first two or three months of 1928 are going to show an improvement. Prices of dry colors are more stable than they have been for many months and the volume of business being put through at present is larger than for the corresponding period last year. The leather business is quiet at the moment but in better shape than during December 1926. A number of failures are noted in the textile industry and this particular industry seems to have moved backward during the past month. Business in the paint and varnish group remains quite light and there are no signs of an immediate spurt in conditions, though the trade is looking to better conditions after the turn of the year.

CLEVELAND

Business in the Cleveland district is picking up somewhat and fill-in orders are coming in in fairly good shape. There seems to be a tendency among the paint and varnish manufacturers to contract ahead on raw materials for next year. The linseed oil market shows little change in activity or interest. Buyers are watching the market and marking time. Rosin has been a little firmer of late and considerable business for the first three months of next year has been booked. Inasmuch as the business in Cleveland depends to a certain extent on the steel industry, conditions in this industry seem much better than they were. Business in general is picking up and considerable tonnage has been placed within the last week or ten days and prices have advanced somewhat. Every one seems very optimistic over 1928.

Ohio

COLORS

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Buyers Guide

ACIDS

Coal-Tar

American-British Chemical Supplies, Inc.
Baird & McGuire, Inc.
Barrett Co.
Calco Chemical Co.
Cooper & Co., Charles
DuPont de Nemours & Co., E. I.
Greff & Co., R. W.
Jordan & Bro., Wm. E.
Monsanto Chemical Works
Roessler & Haslach Chemical Co.
Tar Acid Refining Corp.

Organic

American Cyanamid Co.
Cleveland-Cliffs Iron Co.
Cooper & Co., Charles
Eastman Kodak Co.
General Chemical Co.
Grasselli Chemical Co.
Gray & Co., William S.
Greff & Co., R. W.
Heyden Chemical Corp.
Lewis, John D.
Mallinckrodt Chemical Works
Monsanto Chemical Works
Roessler & Haslach Chemical Co.
Turner & Co., Joseph
Victor Chemical Works

Mineral

American Cyanamid Co.
Cooper & Co., Charles
DuPont de Nemours & Co., E. I.
General Chemical Co.
Grasselli Chemical Co.
Heyden Chemical Corp.
Monsanto Chemical Works
Pennsylvania Salt Manufacturing Co.

ALCOHOL

Denatured

American Solvents & Chemical Corp.
Berg Industrial Alcohol Co., David
Commercial Solvents Corp.
Federal Products Co.
Gray & Co., William S.
Miner-Edgar Co.
Roessler & Haslach Chemical Co.
Seaboard Chemical Co.
U. S. Industrial Alcohol Co.

Methanol

Cleveland-Cliffs Iron Co.
Cooper & Co., Charles
Gray & Co., William S.
Greff & Co., R. W.
Miner-Edgar Co.
Roessler & Haslach Chemical Co.
Seaboard Chemical Co.

ALKALIES

Arnold, Hoffman & Co.
Church & Dwight
Electro Bleaching Gas Co.
Grasselli Chemical Co.
Lewis, John D.
Mathieson Alkali Works
Michigan Alkali Co.
Niagara Alkali Co.
Pennsylvania Salt Manufacturing Co.
Roessler & Haslach Chemical Co.
Solvay Process Co.
Turner & Co., Joseph
Warner Chemical Co.
Winkler & Bro., Co., Isaac

ALUMS

Cooper & Co., Charles
General Chemical Co.
Grasselli Chemical Co.
Greff & Co., R. W.
Monsanto Chemical Works

Pennsylvania Salt Co.
Roessler & Haslach Chemical Co.

AMMONIA or SALTS

Barrett Co.
Benkert & Co., W.
Cooper & Co., Charles
Dow Chemical Co.
General Chemical Co.
Grasselli Chemical Co.
Greff & Co., R. W.
Lewis, John D.
Mallinckrodt Chemical Works
Mathieson Alkali Works
Roessler & Haslach Chemical Co.
Turner & Co., Joseph
U. S. Industrial Chemical Co., Inc.

DYE & TAN STUFFS

American-British Chemical Supplies, Inc.
Arnold, Hoffman & Co.
Calco Chemical Co.
DuPont de Nemours & Co., E. I.
General Dyestuff Corp.
Lewis, John D.
Monsanto Chemical Works
National Aniline & Chemical Co.
Newport Chemical Works
Seaboard Chemical Co.
Starkweather Co., J. U.

FILLERS & CLAYS

American-British Chemical Supplies, Inc.
Arnold, Hoffman & Co.
Burnet Company
Hamill & Gillespie
Miner-Edgar Co.
Roessler & Haslach Chemical Co.
Wishnick-Tumpeper, Inc.

WOOD FLOUR

Burnet Company

PIGMENTS & COLORS

Calco Chemical Co.
Cooper & Co., Charles
DuPont de Nemours & Co., E. I.
General Dyestuff Corp.
Industrial Chemical Co.
National Aniline & Chemical Co.
Newport Chemical Works
Wishnick-Tumpeper, Inc.

ACCELERATORS

American Cyanamid Co.
Cleveland-Cliffs Iron Co.
Doran Chemical Corp.
Dow Chemical Co.
DuPont de Nemours & Co., E. I.
Grasselli Chemical Co.
Greff & Co., R. W.
Lewis, John D.
National Aniline & Chemical Co.
Roessler & Haslach Chemical Co.

FERTILIZER SUPPLIES

American Cyanamid Co.
Barrett Co.
General Chemical Co.
Greff & Co., R. W.
Roessler & Haslach Chemical Co.

INSECTICIDES

Dow Chemical Co.
General Chemical Co.
Grasselli Chemical Co.
Greff & Co., R. W.
Jordan & Bro., Wm. E.
Roessler & Haslach Chemical Co.

INDUSTRIAL CHEMICALS

American-British Chemical Supplies, Inc.
American Cyanamid Co.

Baird & McGuire (creosols)
Barrett Co., The
Carbide & Carbon Chemical Corp.
Carus Chemical Co.
American Potash & Chem. Corp. (borax)
Arnold Hoffman Co.
American Solvents & Chemical Corp.
Church & Dwight (soda bicarb.)
Cleveland-Cliffs Iron Co. (wood chem.)
Commercial Solvents Corp. (butanol)
Cooper Charles & Co.
Croton Chemical Corp.
Doran Chemical Co. (rubber accel.)
Dow Chemical Co.
DuPont de Nemours & Co., E. I.
Emery Candle Co.
Electro Bleaching Gas Co. (chlorine)
General Chemical Co.
Grasselli Chemical Co.
Gray William S. & Co., (wood chem)
Greff & Co., R. W.
Industrial Chemical Co.
International Salt Co.
Jordan, Wm. E. & Bro.
Kalbfleisch Corp.
Lewis, John D.
Mathieson Alkali Works
Merchants Chemical Co.
Michigan Alkali Co.
Miner-Edgar Co. (wood chem.)
Monsanto Chemical Works
Niagara Alkali Co.
Pacific Coast Borax Co.
Parsons & Pettit (sulfur)
Pennsylvania Salt Manufacturing Co.
Roessler & Haslach Chemical Co.
Seaboard Chemical Co. (wood chemicals)
Selden Co.
Solvay Process Co. (alkalies)
Starkweather Co., J. U.
Turner & Co., Joseph
U. S. Industrial Alcohol Co., Inc.
U. S. Industrial Chemical Co., Inc.
Victor Chemical Works
Warner Chemical Co.
Wiarda & Co., John C.
Winkler & Bro. Co., Isaac (alkalies)
Wishnick-Tumpeper, Inc.

SOLVENTS

American-British Chemical Supplies, Inc.
American Solvents & Chemical Corp.
Barrett Co., The
Berg Industrial Alcohol Co., David
Commercial Solvents Corp.
Cooper & Co., Charles
Dow Chemical Co.
General Chemical Co.
Grasselli Chemical Co.
Gray & Co., William S.
Greff & Co., R. W.
Industrial Chemical Co.
Lewis, John D.
Miner-Edgar Co.
Roessler & Haslach Chemical Co.
Seaboard Chemical Co.
U. S. Industrial Alcohol Co.
U. S. Industrial Chemical Co.
Warner Chemical Co.
Wishnick-Tumpeper, Inc.

COAL-TAR, CRUDES & INTERMEDIATES

American-British Chemical Supplies, Inc.
Baird & McGuire, Inc.
Barrett Co., The
Calco Chemical Co.
DuPont de Nemours & Co., E. I.
General Dyestuff Corp.
Grasselli Chemical Co.
Gray & Co., William S.
Jordan, Wm. E. & Bro.
Mathieson Alkali Works
Monsanto Chemical Works
National Aniline & Chemical Co.
Newport Chemical Works
Tar Acid Corp.
Wishnick-Tumpeper, Inc.

CONTAINERS

Carpenter Container Co.
Chase Bag
Pressed Steel Tank Co.
Trappeur Steam Copper Works, John

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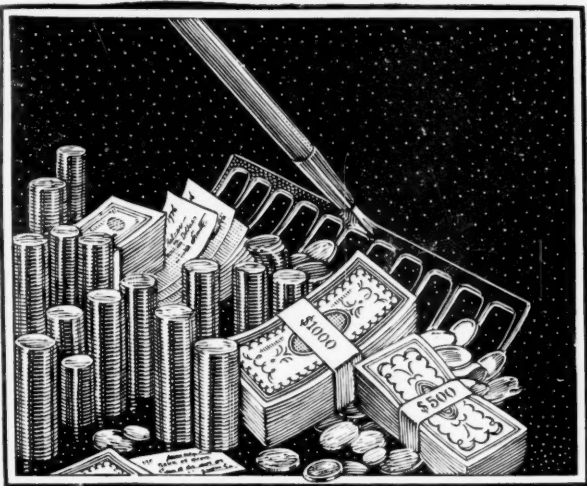
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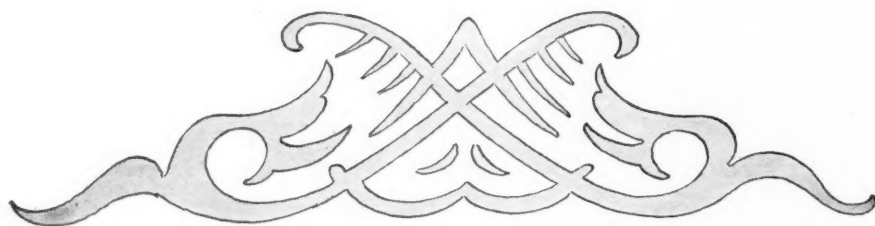
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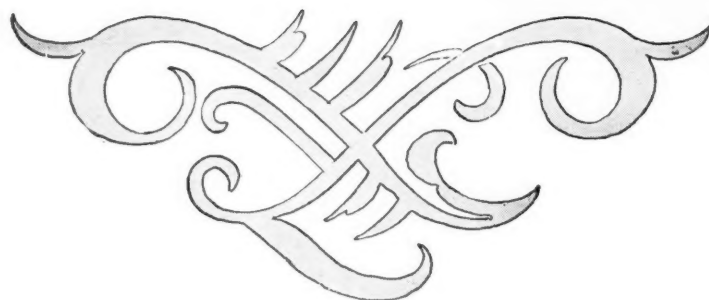




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